

WORCESTER **medicine**

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THE OPIOID CRISIS

A dramatic, low-key photograph of a hand holding a small, white pill bottle. The bottle is tilted, and several pills of various colors (white, black, green) are spilling out onto a dark, reflective surface. The lighting is warm and focused on the hand and the spilled pills, creating a somber and urgent atmosphere.

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Editorial



Michael Hirsh, MD



Jane Lochrie, MD

This month's edition of *Worcester Medicine* represents a collaboration of the Worcester Department of Health and Human Services (WDHHS), the Worcester Division of Public Health (WDPH) and the Worcester District Medical Society (WDMS) to bring to the attention of our leaders the need for everyone in our medical community to step up and face the scourge of opioid addiction and substance use disorder.

To put things in perspective, 2016 statistics showed that firearms killed 38,000 Americans. Motor vehicles killed 40,000. But SUD claimed the lives of 60,000 Americans across the country. These victims of the opioid scourge have demographics that cross all socioeconomic and racial and ethnic boundaries. The plague is upon us all. At the request of Dr. Matilde Castiel, Worcester's commissioner of health and human services and a past recipient of the Worcester District Medical Society's Lifetime Achievement Award for her work with SUD in the Latino population, *Worcester Medicine* picked up the gauntlet and decided to dedicate this edition to the crisis, as well as several upcoming episodes of *Health Matters*, the cable access health news show produced in collaboration with WCCA-TV, Channel 194.

This edition features tragic tales of loss, tales of triumphant recovery, tales of new approaches to the crisis and affirmation that as a community, Central Massachusetts is not taking this epidemic lying down. More than 180 naloxone administrations by our Worcester first responders (many trained by the WDPH) saved lives in Worcester last year. But we still lost more than 70 people to overdose. We are hoping that this edition will provide insight into the magnitude of the problem and give physicians and patients alike the agency to do something about the problem.

Warning: Some of the submissions are quite raw but all the more inspiring for the generosity of spirit that led the authors to share their heartbreak. We hope their candor will inspire our readers to step up and make a difference.

Michael Hirsh, MD, Guest Editor

In the first article, Representative James O'Day gives a poignant and frank account of his road to recovery. His first experience with intoxication was in the seventh grade, and his addiction was exacerbated by owning his own bar at the age of 23. He tells us how this insidious and complicated disease strained every aspect of his life. When he was able to fully embrace recovery, his life markedly improved and he was able to become a productive member of society and even become a state representative!

In our next article, Deborah Dowd-Foley relates her family's struggles with a son who was addicted. This started when he was a high school student at St. John's. He spent five months at Spectrum Residential Treatment Center, and sadly, a year later, his mother found his lifeless body in bed when he did not get up for work. She describes how addiction affects the entire family and how she is able to cope. Sharing her story with many different venues, helping others and raising awareness of this problem is her way of keeping her son's memory alive.

The role of acupuncture in pain management and addiction is explained by Meredith St. John, MAc, Lic.Ac. She states that there are numerous systemic reviews and meta-analyses confirming the effectiveness of acupuncture in treating chronic pain. In addition, she describes the role of acupuncture in treating addiction, due to its effect on the release of dopamine. Regrettably, the lack of insurance coverage is a huge barrier to obtaining treatment, as each session cost \$75-\$100.

Dinesh Yogaratnam, PharmD, BCPS, BCCP, and Nnamdi Okeke, PharmD, MBA, define the variable response of individual patients to analgesics. They describe how gender, race, ethnicity and genetics influence opioid responsiveness among patients. They describe the fascinating role that genetic polymorphisms play in these differences.

As always, the UMass medical students are fully engaged in this epidemic. Matthew Carroll, a fourth-year medical student, described the disparity of what he learned in class and what he saw on his clinical rotations. He closes by stating that he is determined to prescribe responsibly.

Jonathan Quang, also a fourth-year medical student, writes that overdose deaths have now overtaken automobile accidents as the leading cause of death in the U.S. There is an obvious role for opioids in end-of-life and post-operative pain management. He advocates for the use of the CDC treatment guidelines for other situations, such as chronic pain.

First-year medical students, Olivia Karcis and Sardis Harward, along with Kavita Babu, MD, are actively engaged in trying to solve this emergency. They noticed that patients who had unused opioids after surgical procedures had nowhere to dispose of them. They are working to provide secure and convenient disposal boxes for leftover tablets with the help of Dr. Michael Hirsh, medical director of the Worcester Division of Public Health, and Chief John Luippold, of the University of Massachusetts Medical School Police. The students are working with the Overdose Prevention Fund that was started in 2016 to make this happen. The Worcester District Medical Society was so impressed with their efforts that it made a generous donation to the fund.

As always at this time of the year, we print the winning reflective writings by our colleagues at the Massachusetts Medical Society. Sarah Sullivan, MD, offers a poem describing her time as a patient and how she perceived her care. In her essay, Irma Szymanski, MD, gives a heart-wrenching description of her last day with her father.

Please don't leave this publication without enjoying *As I See It* and *Society Snippets*. Over the past few months, the Worcester community has lost three of its physician leaders, Drs. John Darrah, Stuart Bentkover and Rashmi Patwardhan. Please read the memorials written by their close colleagues.

Jane Lochrie, MD, WDMS Editor

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My Recovery Story

Rep. James O'Day



Rep. James O'Day

I am a person in long-term recovery from addiction to alcohol and drugs, and I love being in recovery. Recovery not only gave me my life back, but it saved my life. It saved my relationship with my parents, wife and children. While I much prefer to talk about the many positive aspects of recovery and the wonderful things that have happened in my life since embarking on this journey of recovery, I also feel it is important to share the ugly side of active addiction. My addiction was no different than the next person's – I used every day so that I did not have to deal with my feelings. The substances that I abused were many, and it started at a very young age. The first time that I got intoxicated was in the seventh grade, but I had my first drink even earlier than that. This set the stage for future troubles, culminating in full-blown addiction by age 36.

In 1968, my parents opened a bar in Worcester called Kelly's Rainbow Gardens. I remember helping to get the place ready for its grand opening and pouring myself several 8-ounce glasses of beer before going to a dance at the YWCA. I was 14, and I felt like I was on top of the world. My first legal drink was also consumed at Kelly's at age 18, which became the legal drinking age in Massachusetts that year. By then, I had already gone to Rhode Island on numerous occasions because its drinking age was 18 before the Massachusetts law changed. By the time I graduated from high school at the age of 19, I considered myself "a professional drinker." I continued to get plenty of practice drinking while working as a bartender for my parents at Kelly's. Then, with the help of my parents, I began running my own bar in 1977. I was 23 years old.

I couldn't have asked for a better setup. I had my own bar to drink in with all my buddies. I had money to buy other drugs that were available, and I pretty much did whatever I wanted, including staying out late. My relationships were not a priority for me at the time – I was young and I preferred to spend my time getting wasted. Though I owned the bar for only two years, I think I did eight years' worth of partying in that time.

Although my introduction to substances began with alcohol, between the ages of 13 and 43, I satiated my addictive appetite with many different substances. In the final six years of my use, things changed. While I previously used to "party," my alcohol/drug use became a daily occurrence so I wouldn't have to experience withdrawal. By the end of my using, I hated who I had become and couldn't stand looking myself in the mirror every day.

Not only was my drinking/drug use causing physical problems, but 30-plus years of using mind-altering substances added a lot of chaos to my personal life as well. It cost me a healthy relationship with my first two sons. It greatly strained my relationships with my parents and other family members, too. People who cared for me and loved me had a really hard time watching me slowly destroy my life. My destructive behavior put a strain on every aspect of my life. Adding to this chaos was that fact that I was a social worker and I was supposed to be offering sound advice to families but found it extremely difficult to do so. It was a really lousy place to be. Due to my addiction, every aspect of my life had become unmanageable.

My recovery anniversary is Sept. 21, 1997. That is the day my life changed dramatically. Recovery didn't happen in a day, though. Six years earlier, in February of 1991, I entered detox for the first time, though it would not be my last. Addiction is a complicated and insidious disease. It was during that first detox visit that I first admitted that I was powerless over drugs and alcohol and that my life had become unmanageable – though I'm not sure I really believed it. I remember my first meeting with the clinician who was assigned to me at this residential facility. I said to him that being there was the worst day of my life. However, over the years, I have turned that story around, and now I say that

it was one of the best days of my life.

Even though I didn't stop using after my first treatment experience, the seed of recovery had been planted. Over the next six years, I had short periods of sobriety but struggled to stop using completely. I tried on my own to abstain and occasionally went to self-help group meetings, but sooner or later, I'd fall back to my old behaviors. Every time I returned to detox or a treatment facility and met with the clinician assigned to me, their assessments were the same: "You just don't want to surrender." Sitting there in the office with them, I would agree. Complete surrender is not an easy concept to accept if you're struggling with alcohol or substance use. Fully surrendering means you are not in control any more, you are willing to take suggestions, and you have the desire to not drink or use drugs – one day at a time. For someone like me, who used multiple substances for more than 30 years, that's a huge change. One of my favorite sayings in recovery is, "You only have to change everything but your name." You have to change the way you think, the people you hang around, the places you frequent, the way you live... the list goes on and on.

The last day I used was Sept. 20, 1997. I can't tell you anything special that happened that day, except that when I got up the next morning, I was able to go the entire day without using. From that day on, my days of being sober just seemed to follow one after the other. I was attending self-help meetings, going to counseling and working. I started to add sober days together and managed to go each day without using any mind-altering substances. Then, one day, it hit me. Every day prior, I was obsessed with using but managed not to use. But on this day, I realized that an entire day had gone by and I didn't think about using once. This was a miracle. For years, I couldn't recall a day that I wasn't fixated on drinking or smoking pot or using some other type of substance. Yet here I was, passing an entire day without a thought about using. Was it divine intervention? I don't know. I didn't question it; I just fully embraced it. Once the obsession with using was lifted and I felt I had surrendered to the disease of addiction, every aspect of my life started getting better. My relationships with family members started to improve as trust was rebuilt. I was now more than just physically present for those around me, but emotionally and spiritually, too. I was a much stronger person emotionally and was able to focus on other people instead of myself. Addiction made me selfish. In recovery, I was able to become selfless. I much prefer the latter.

Over the past 21 years, recovery has given me my life back. It gave me the opportunity to spend time with my two youngest sons. I coached them from the time they started in tee-ball up until they stopped playing Babe Ruth baseball. Those are days that I will always treasure. My life became so full and busy in recovery, and I had no time to spend sitting in a bar or chasing down illicit substances. At work, I found myself much better suited to provide guidance to the families with whom I worked, and as a direct result of recovery, I received the Commissioner's Award for my work on the DCF Hotline. When appropriate, I shared my story with others who were struggling with substance use as a way to guide them toward recovery. As they say in recovery, "Recovery gave me a life second to none." Recovery strengthened my marriage with my wife, Marybeth. Recovery gave me the opportunity to truly focus on being a better husband and father. It gave me the ability to become a more productive member of society and even to become a state representative.

Upon entering elected office, people warned me that it might not be a good idea for an elected official to be so open about being in recovery. I disagree. It is incredibly important to be open about my recovery. I feel that it is the best way that I can help diminish the long-standing prejudice towards those struggling with addiction. It is time we put an end to the stigma around addiction and show the world that addicts can and do recover. My wife and children have been incredibly supportive and have encouraged me to be open and honest about my recovery. I'll say it again: I love being in recovery, and I love the life that I have been able to live as a result of my recovery. This is the first time that I have ever written about my recovery, and I hope that it reaches at least one person who sees a glimmer of recognition in my story and begins to consider his or her own recovery. I hope that my message is clear: If you're struggling with addiction, give yourself a break and find your way to a recovery community. Recovery works!

State Representative Jim O'Day represents the 14th Worcester District and is a licensed social worker.

One Family's Journey with Substance Abuse Disorder

Deborah Dowd-Foley (Mother) and Elizabeth Foley, MBA (Daughter)



Brian Foley



Brian Foley (left) and his family

I had always considered our life to be somewhat typical. My husband and I raised three children (Brian, Liz and Kathryn) in a small town, where they attended school, played sports, vacationed regularly and maintained a great group of friends. However, as life has unfolded, I realize that regardless of how much you love, care and provide, addiction can easily undermine each of those things.

It's hard to know when Brian's problems really surfaced. As a high school student at St. John's, he was caught with marijuana, then later found with a classmate's Ritalin. When asked about it, he declared that it helped him study. After seeing a child psychologist who tested and diagnosed him with ADHD and anxiety, he visited a psychiatrist who started him on a mild anti-depressant and medication and began counseling. Things seemed to regularize, and he was accepted into Bridgton Academy, where he attended a post-graduate year. In talking with Brian after he had been away for a semester, he claimed he felt "normal" because so many of the guys were on some sort of medication. He was then accepted and began attending Assumption College. Over the next two years' tenure, Brian stopped taking his prescribed medications, mentioning that he was "doing better." Unbeknownst to us, Brian began using prescription opioids, affecting his grades and eventually forcing him to drop out. Maintaining his social life with high school and college friends along with a girlfriend, he found a full-time job he loved, working nights as a counselor at a residential/day school for boys with behavioral struggles, never missing a day.

When things started to change, Brian always denied any problems (rather convincingly). He provided the same responses time and time again: Nothing was wrong; school was not for him; managing money wasn't his strength, but he had a job, an apartment and was fine. Things changed rapidly when, in 2013, he was pulled over by the police for having no registration, license or insurance, relying on friends to bail him out. Later, we found out that the police also found a small amount of heroin in his car. About a month after, he called to tell us he had a drug problem, failed a drug test after breaking the court's demand to remain drug-free, and needed help.

Upon securing a Department of Public Health-funded bed at Spectrum Residential Treatment Center, the court had instructed Brian to remain in treatment for five months, the maximum time the state permitted. In complying with the treatment plan, he left after 20 weeks, and we allowed him return home. While on probation, with periodic drug testing, he regained his driver's license, began working for his friend's father, reconnected with his old friends and attended AA meetings regularly. He was happy, and we were hopeful. However, six months later, in May, we noticed he was not attending meetings

and the excuses returned, though he denied any problems. We celebrated his one-year anniversary of sobriety on June 4, 2014, and on June 20, we had a great conversation before he went out. He promised to be good and would be home early because he had to work Saturday morning. When he didn't rise at his regular time, I went in to wake him and I found him in bed – unresponsive, blue lips and without a pulse. His father started CPR while I called 911. Attempts by first responders with Narcan, CPR and a defibrillator were all unsuccessful, and just like that, Brian was gone.

Our lives changed forever on June 21, 2014. Brian was 27 years old – our first-born and our only son – and now he had left us forever. The journey of grief and loss began as his father and I, two sisters, family and friends tried to understand what had happened. As a mother, the experience is unimaginable. How could this happen to us? Three-and-half years later, my knowledge of substance use disorder is far greater than when he was alive. Many people have asked how I have coped. For me there is not one answer. Several things, including my faith; friends from Learn to Cope (a support group that became a staple for me while Brian was in treatment), who recognized this could happen to their families, provided support; friends from Al Anon (which I also began attending during his treatment) were amazing; working with truly caring people who continue to offer support every day; exercising; and seeing a grief counselor twice was helpful in acknowledging whatever I was feeling was grief and it was "normal."

If there is one thing I have learned, it is that addiction is truly a family disease, one that touches all, regardless of what you have or where you come from. In the aftermath of Brian's death, spending time with my two daughters and husband was important to help us all get through this as a family. We were so unfamiliar with addiction and relapse being part of the disease but now recognize and understand that addiction is not a choice, not something that should be shameful. Through telling our story, and Brian's story, many people confided how addiction had affected their own families.

Since losing Brian, my daughter and I have worked with the Worcester Department of Public Health and Dr. Mattie Castiel to share our story with the Worcester city manager and city councilors; I have spoken to UMass medical students on a panel; became involved in the International Overdose Awareness Day event held in Worcester; joined the District Attorney's Opioid Task Force; and helped Dr. Castiel and Worcester DPH install a plaque in memory of those who have passed from an overdose. I also have started a monthly grief group with another mother specifically for anyone who had lost a loved one to substance abuse. Helping others and raising awareness is our way to honor Brian and keep his memory alive.

Variable Response to Opioid Analgesics: The Role of Ethnicity, Gender and Genetics

Dinesh Yogaratnam, PharmD, BCPS, BCCCP, and Nnamdi Okeke, PharmD, MBA



Dinesh Yogaratnam, PharmD, BCPS, BCCCP



Nnamdi Okeke, PharmD, MBA

Not all patients respond equally to prescription opioids. While some patients require small doses to achieve effective pain relief, others may require large or escalating doses that only partially resolve their pain. Some patients experience debilitating drug-related side effects, such as nausea, sedation, respiratory depression or constipation, while others tolerate opioids without suffering any adverse events. The grave risk of opioid addiction is also variable among patients. Despite the fact that opioid analgesics are one of the most prescribed classes of medications in the United States, reliably predicting which patients will have a safe and effective response to therapy remains an unmet health care challenge. Gender, race, ethnicity and genetic variations are among some of the factors which may influence opioid-responsiveness among patients.

Differences in pain perception have been observed between different ethnic groups suffering similar painful conditions. For example, African Americans have reported greater degrees of pain than whites for chronic pain conditions such as gout, glaucoma and migraine headaches.¹ In two separate studies of older patients with knee osteoarthritis living in northwest Florida, both African Americans and Asian Americans reported higher levels of knee pain than non-Hispanic whites.^{2,3} Studies using experimental models of pain have also demonstrated higher pain sensitivity for ethnic minorities as compared to non-Hispanic whites.⁴ In a national survey conducted in Singapore, it was reported that participants of Malay descent had lower pain severity compared with Chinese participants, and Indian participants reported greater pain severity when compared with both Malay and Chinese participants.^{5,6} The reasons for ethnic variation in pain response may be due to differences in cultural and social norms (e.g., stoicism), religious or philosophical beliefs about pain, or acclimation to harsh living conditions. Since pain is subjective, these differences in the how pain is felt and expressed may yield important variations in the dose-response relationship for opioid analgesics among varying ethnic groups.

Gender may also influence opioid responsiveness. It has been reported that women experience and report pain more frequently than men and that a number of chronic pain conditions, such as fibromyalgia, migraine headaches and irritable bowel syndrome, are more prevalent in women than in men.⁷ Pain intensity for diabetic neuropathy has also been observed to be greater in women than men.⁸ In post-operative patients, both higher and lower opioid consumption among women has been reported.⁹ In a database study of orthopedic surgery patients, older age and presence of pre-operative chronic pain appeared to be risk factors for increased pain intensity, pain frequency and opioid consumption among female post-operative orthopedic surgery patients.¹⁰ Providing treatment via intravenous, patient-controlled analgesia (PCA), and the use of morphine PCAs in particular, has been associated with increased opioid consumption among postoperative women.⁹ In contrast, in a study of patients undergoing

major extremity, thoracic or abdominal surgery, women consumed less opioids via patient-controlled epidural analgesia (PCEA), but also experienced more opioid-related nausea and vomiting.¹¹ In the United States and Canada, it has been reported that women are at greater risk for opioid abuse than men.¹² There are likely multiple explanations for the reported differences in pain prevalence, pain sensitivity and opioid-responsiveness between genders. Menstrual-related fluctuations in circulating levels of estrogen and progesterone, alterations in androgen concentrations, oral contraceptive use, hormone replacement therapy and anti-estrogen therapy have all been associated with changes in nociception in women.⁹ Psychosocial, cultural and neurobiologic factors have been implicated in altered pain response among women, but the exact and predominant mechanisms remain largely unknown.^{7,9,12}

Genetic polymorphisms are widely recognized as being an important contributor to pain perception and opioid-responsiveness. Genetics can affect the function and sensitivity of the opioid receptor, as well as the metabolism, distribution and elimination of opioid drug analgesics. Opioid analgesics primarily exert their effect by activating the mu-opioid receptor (MOR). The MOR is a g-protein-coupled receptor encoded by the OPRM1 gene. Genetic polymorphisms associated with this gene may affect the pharmacodynamics of opioid analgesics. Research has shown there are more than 3,000 polymorphisms in human OPRM1, with the most well-studied, single nucleotide polymorphism (SNP) being the A118G nucleotide substitution.¹³ The frequency of this SNP varies among different geographic populations (from 16 percent in northern and western Europeans to 46.5 percent in Asians), which may partly account for some of the ethnic differences in pain perception and opioid responsiveness. The clinical implication of this SNP remains unclear. In one meta-analysis, the A118G SNP was not found to be statistically associated with pain intensity or opioid dose requirements among patients with post-operative, cancer-related or non-cancer-related pain.¹⁴ However, in a meta-analysis of post-operative patients, carriers of the A118G allele reported higher pain scores, consumed more opioids and experienced less nausea and vomiting (presumably due to a blunted opioid response) than non-carriers.¹⁵

Genetic polymorphisms may also affect the metabolism and activation of opioid analgesics. The cytochrome P450 (CYP) 2D6 enzyme is well known for its role in the metabolism of codeine, tramadol, hydrocodone and oxycodone.¹³ Polymorphisms in the genetic makeup of this enzyme can lead to four clinical phenotypes: ultra-rapid, extensive, intermediate and poor metabolizers. Patients who are poor metabolizers (individuals with little to no CYP2D6 activity) or ultra-rapid metabolizers (individuals with highly elevated CYP2D6 activity) can have markedly altered response to drugs that are CYP2D6 substrates. For example, codeine is a prodrug whose activity is highly dependent on its conversion to morphine by the CYP2D6 enzyme. Patients with little activity of CYP2D6 (poor metabolizers) are likely to have little to no response to codeine, while patients with markedly enhanced activity of CYP2D6 (ultra-rapid metabolizers) are likely to be extraordinarily sensitive to codeine. One unfortunate case report describes an infant death as a result of this phenomenon.¹⁷ The mother, who was unknowingly a 2D6 ultrarapid metabolizer, was prescribed Tylenol3 (acetaminophen 500mg and codeine 30mg) for post-partum pain. She took the pain medicine, as directed, while breastfeeding. The infant developed increasing anorexia, lethargy and cyanosis, and eventually succumbed to morphine poisoning. A post-mortem toxicology analysis reported the morphine concentration in the infant's blood stream as 70ng/mL, which is approximately 10 times higher than the normal therapeutic range required for morphine analgesia. The U.S. Food and Drug Administration (FDA) and The Clinical Pharmacogenetics Implementation Consortium (CPIC) have separately issued warnings and guidance regarding the use of codeine in children, breastfeeding mothers and patients identified as a CYP2D6 ultra rapid metabolizers to reduce the risk of severe toxicity.^{18,19} While genetic testing may help to identify those patients that may respond differently to opioid pain management, the cost-effectiveness and ethics of routine screening remains debatable. Further research is similarly needed to confirm the value of genetic testing in populations with a high prevalence of clinically relevant genetic polymorphisms and among individual patients in whom an abnormal response

to opioid therapy is observed.²⁰

Genetics, gender and genealogy are just some of the factors that can influence patients' response to opioid analgesics. External factors, such as chronic opioid exposure, can lead to drug tolerance or opioid-induced hyperalgesia, while concomitant benzodiazepine or alcohol use can increase the risk of opioid-induced sedation and respiratory depression. By recognizing that numerous factors can influence the response to opioid therapy, clinicians may be able to develop more tailored dosing and monitoring plans for patients who may be at heightened risk for a suboptimal opioid experience.

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Role of Acupuncture in Management of Pain and the Opioid Crisis

Meredith St. John, MAc, Lic.Ac.

The challenges of pain management have come into clear focus in recent years with increasing concerns about the pervasiveness of pain and increases in use of prescription opioids with their associated risk of abuse. Acupuncture is among the evidence-based strategies that can contribute to a comprehensive remodeling of medical pain management that includes nonpharmacologic strategies. The American College of Physicians recommends acupuncture as a first-line treatment in its most recent “Clinical Practice Guidelines,” in part because of reduced risk of harm compared to pharmacologic treatments.¹ The Joint Commission now requires accredited hospitals to provide nonpharmacologic treatments for pain as a scored element of performance. Numerous federal agencies, including the DOD, VHA, NIH, FDA and CDC, have advocated for new pain management practices.

A recent white paper published by the *Journal of Integrative Medicine* (2017) and endorsed by the Academic Consortium of Integrative Medicine and Health – a group of 72 North American academic medical centers whose mission is to improve clinical care through evidence-based medicine initiatives in research and education² – summarizes the significant contributions acupuncture affords to chronic pain management. Numerous systematic reviews and meta-analyses provide evidence of the effectiveness of acupuncture in treating chronic pain of the low back, neck, shoulder, knee and hip, as well as cancer pain, migraines, tension headaches, peripheral neuropathy associated with diabetes and HIV, carpal tunnel syndrome and temporomandibular disorder. In one meta-analysis of 31 RCTs for acupuncture treatment of back, neck and shoulder pain, knee osteoarthritis and chronic headache, outcomes were pooled for 17,922 patients, establishing that acupuncture provided greater pain relief than sham or no acupuncture for each pain condition. The effects were stable, decreasing by 15 percent at 10-month follow-up.³ Relaxation effects of acupuncture offer significant additional benefits in relieving anxiety and stress, while promoting restful sleep and a sense of well-being and comfort that may contribute to self-efficacy.

In clinical and research protocols, acupuncture treatment is often provided once a week, though increased frequency can be helpful in severe cases, for a total of eight to 15 sessions. Patients can often experience rapid onset of acupuncture’s analgesic effects, which continue to strengthen and last longer throughout the course of treatment. Patients with very severe, long-standing pain may benefit from prolonged care.

Numerous studies have shown that acupuncture has an excellent safety record when provided by appropriately trained practitioners. In a large observational study completed in the German social insurance system for patients with chronic pain conditions, researchers found a large effect size and excellent safety record. A total of 454,920 patients with chronic low back pain, headache and osteoarthritis were treated with a median of eight acupuncture sessions, for a total of 3.84 million treatment sessions. Assessed by the providers, outcomes for 76 percent of patients were rated as “marked” or “moderate.” A 7.9 percent rate of minor adverse effects was found, which included bruising or pain at the site of needling, transient dizziness upon arising from treatment and fatigue. Serious adverse events of infection or pneumothorax occurred but were extremely rare, in 1:34,994 patients or 1:295,000 treatment sessions.⁴

Acupuncture also plays a direct role in treating addiction. Introduced in the U.S. by Dr. Michael Smith, of Lincoln Hospital in Bronx, New York, acupuncture has been shown to be useful when provided as part of a comprehensive rehabilitation program. It is offered for this purpose in an accessible format that requires no individualized assessment, with patients needled in the auricles of the ears in a group setting. The likely mechanism of action is related to the release of dopamine. Positive outcomes have been seen for cocaine, heroin, alcohol and

tobacco withdrawal symptoms and cravings. Patients frequently report an immediate calming effect, reduced anger and irritability, and improved sleep, all intermediate outcomes that can help support abstinence and retention in treatment. Body acupuncture, with or without electroacupuncture, has demonstrated effects, as well, and though not as well-studied, may be helpful in long-term rehabilitation.⁵

The lack of comprehensive insurance coverage is a significant barrier to care. Most acupuncturists in the U.S. operate private practices, and fees of approximately \$75–\$100/session are paid by patients. Many Massachusetts hospitals support pilot acupuncture programs, often funded by philanthropy. These include, for example, Boston Medical Center (family medicine, pediatrics, oncology, substance abuse), MGH (oncology, staff wellness), Floating Hospital (oncology) and Dana-Farber Cancer Institute (oncology). The cost-effectiveness of acupuncture was established in several large European trials, where acupuncture is a covered benefit in national health services. Balancing modest additional costs of acupuncture care are improved quality of life and reduced expenses of other medical visits, diagnostic and treatment procedures and medications.

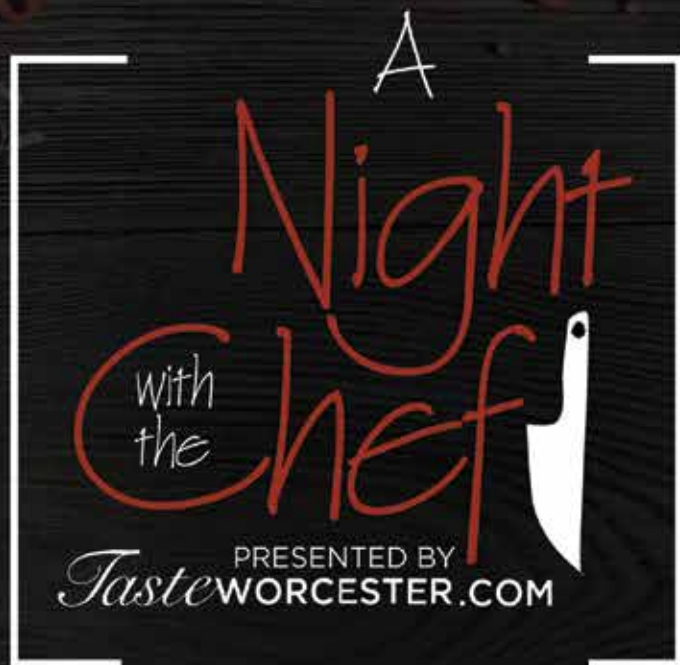
Acupuncturists in the U.S. are trained in master’s-level academic programs that incorporate a foundation in biomedical clinical sciences, pathophysiology and pharmacology and extensive clinical training supervised by senior faculty. Graduates are required to pass rigorous board certification examinations and are licensed by the state. At MCPHS University, a new clinical doctorate program prepares acupuncture clinicians to provide care in hospitals as part of integrative, interprofessional health teams. Our graduate programs in acupuncture are professionally and regionally accredited and have the same standing in the university as other graduate programs in the health care professions.

The white paper’s four-point call to action outlines a role in the crisis for all health care providers and educators: to increase awareness of effective nonpharmacologic treatments for pain, to educate providers and administrators on their availability and use, to support advocacy efforts that favor reimbursement for nonpharmacologic treatments and to promote research and dissemination of all evidence-based strategies. Implementation of these goals will contribute to the transformation of medical pain management that is urgently needed.

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A New Generation of Prescribers

Matthew Carroll, MS4



Matthew Carroll

needed to do better and providers were already adjusting their prescribing practices. I was joining a new generation of physicians who would receive two educations in parallel – one in the classroom, where I was exposed to data and evidence on addiction and taught how to prescribe responsibly, and the other on the wards.

I met Mr. K early in my clinical experience. He was a vasculopathy – diabetes, hypertension and decades of smoking had ruined his peripheral vasculature. When a small cut in the sole of his foot had failed to heal, infection set in, began the climb up his leg and turned his blood bacteremic. On the operating room table, the surgical team had quickly passed through the soft tissue of his distal leg and pushed the serrated blade through the bone leaving him with a below the knee amputation. Mr. K's recovery was complicated by refractory pain and persistent bacteremia. When his amputation was ultimately revised to an above the knee amputation, his blood cultures finally cleared, but his pain remained. He spoke little English, but through his agony, he found the phrase "I in pain," and he clung to it, repeating the words again and again.

When Mr. K was admitted to the hospital, he was continued on his home regimen of opioids, written for additional standing doses and written for further as needed doses. Despite this regime, now in this acute setting, Mr. K's pain broke through the wall of painkillers and he was suffering. I watched as the resident team struggled to manage him effectively, unsure if increasing his dose would treat his pain or grow a physiologic dependence on opioids.

While opioids have progressed to a dominant role in pain management the past 30 years, saving patients from debilitating pain, it is estimated that 8 percent to 12 percent of patients who receive an opioid prescription go on to develop a drug use disorder.⁵ After decades worth of overprescribing, physicians now face the

I began medical school in 2014, some decades after pain specialists in the 1980s first advocated for the increased use of opioids in the management of chronic pain (an endeavor supported by the pharmaceutical industry¹), after the concept of pain as a vital sign was introduced in the mid '90s² and as drug overdoses were quickly becoming the leading cause of death in Americans younger than 50.³ Opioid prescriptions peaked in 2010,⁴ and by the time I entered medical school, mountains of data indicated to the medical community that they

consequences of an opioid epidemic in emergency departments and outpatient clinics across the country. As a new generation of prescribers absorbs the lessons of these past decades, the medical community is adjusting to address and help solve the opioid epidemic. This work has begun on multiple fronts.

To influence new physicians before they begin their own prescribing practices, medical schools and residencies have implemented a variety of mandatory opioid training modules into their curricula. These programs are necessary and exist to address the addiction epidemic. The practice of pain management is, however, acquired through clinical experience. Just as medical students learn the physical exam from physician teachers, they begin to learn how to prescribe opioids by watching their teachers on the wards. I've watched physicians discuss opioid contracts, give patients their first prescriptions for oxycodone and refuse to prescribe oxycodone, and I have felt their concern after a patient with a new amputation repeatedly asks for more and more dilaudid. I've seen how opioids are a tool of practical medicine in the hospital and how this fact can sometimes be difficult to reconcile with the theory of responsible prescribing.

As I watched the resident team manage Mr. K's care, I was aware of how challenging it can be to merge the requirements of practical medicine with the lessons taught in the modules. On the precipice of beginning my residency and my own prescribing practice, I wonder if I will be driven by the institutional knowledge I acquire on the wards or the broader lessons learned in the classroom. Though I am determined to prescribe responsibly, I suspect that I will follow closely in the footsteps of my teachers and fall more in line with the practical medicine that I experience. If this is the case, I worry that I will not be the change agent needed to help stop the addiction epidemic.

Matthew Carroll, MS4, is a fourth-year medical student at the University of Massachusetts. He will be starting a residency in general surgery at Dartmouth Hitchcock in 2018.

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The Role of Opioids in an Opioid Crisis

Jonathan Quang, MS4



Jonathan Quang

We are in the midst of an opioid crisis in America. This crisis is featured prominently on the news and is a topic that seems to galvanize politicians on both sides of the aisle. The statistics are staggering, and we are growing uncomfortably familiar with the numbers: 46 lives lost daily to prescription opioid overdose,¹ more than 165,000 prescription opioid overdose-related deaths since 1999, 249 million prescriptions written in 2013 (enough prescriptions for every adult in America to have a bottle of pills).² When accounting for non-prescription opioids, these numbers grow to 115 American lives lost daily and 630,000 overdose deaths since

1999.³ In 2014, overdose overtook automobile accidents as the leading cause of death in the U.S.⁴ In our own city of Worcester, opioid overdose claimed the lives of 56 people, the fourth highest in the state of Massachusetts.⁵ These numbers paint a very clear picture: Opioids are destroying lives, devastating families and tearing apart our communities. What role, then, do opioids still have in medicine during this devastating crisis?

The knee-jerk reaction to this crisis is to stop prescribing opioids. However, opioids are an important treatment modality in our repertoire and should not be so readily disposed. There are several situations in which the indications for opioids are more apparent. There are other situations where they are clearly not indicated. Then, there are the situations where opioids are controversial. Patients deserve to have adequate pain relief. Safe, effective treatment of pain, however, requires a good understanding of all the tools available (opioid, non-opioid and non-pharmacologic), careful consideration of the risks and benefits, and good communication and follow-up with the patients.

The role of opioids in palliative and end-of-life settings is among the most obvious. In these situations, patient comfort and quality of life take precedence, and prognosis tends to obviate concerns of dependence, addiction and overdose. Treatment of active cancer pain is another situation in which the use of opioids is widely supported. Evidence from a Cochrane systematic review suggests that 19 out of 20 people with moderate or severe pain associated with active cancer, when given opioids and were able to tolerate them, had pain reduced to mild levels or no pain within 14 days.⁶

Opioids are indispensable in the treatment of acute post-operative pain and moderate to severe acute pain. This, however, comes with a risk – opioid use for acute pain is associated with a dose-dependent increase in the risk of long-term opioid use and in the risk of overdose.⁷ It is important to remember that not all acute pain needs to be treated with opioids. A multi-modal approach maximizing non-opioid and non-pharmacologic modalities should be taken. Opioids should be used only when necessary, in the lowest effective dose and for the shortest duration possible to minimize risks. According to the CDC, for

acute pain, prescribing opioids for three days or less is usually sufficient and the need to prescribe for longer than seven days is rare.⁸

There are several types of pain in which the role for opioids is dubious, especially given the state of crisis we are in now. Neuropathic pain is chronic in nature and notoriously difficult to treat, partially because the etiology of the pain is difficult to target. A Cochrane review evaluating opioids for neuropathic pain was not able to demonstrate that opioids were better than a placebo.⁹ Chronic low back pain, similarly, is also notoriously difficult to treat. Another Cochrane review looking at the use of opioids to treat chronic low back pain was unable to support that opioids are more effective than anti-inflammatories or antidepressants.¹⁰ With greater risks than alternatives that are likely equally effective, there does not seem to be a role for opioids in the treatment of chronic low back pain.

The treatment of chronic non-cancer pain is highly controversial and likely represents a problematic gray area for many practitioners. The CDC has set forth guidelines to help navigate these tricky waters. What these guidelines ultimately come down to is practicing good medicine: a familiarity with all other treatments available, careful consideration of the risks and benefits and strong patient communication and follow-up. During this time of crisis, practicing good medicine may be all that some providers can do, and while it may be simple at its very core, I believe and hope that it will have a profound impact and that we will be doing right by our patients.

Jonathan Quang, MS4, is a fourth-year medical student at the University of Massachusetts Medical School who recently matched into Emergency Medicine at Reading Hospital in Reading, Penn.

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A Multidisciplinary Approach to Post-Operative Opioids

Olivia Karcis, MS1; Sardis Harward, MS1; and Kavita Babu, MD



Olivia Karcis, MS1; Sardis Harward, MS1; and Kavita Babu, MD

Editor's Note: Two UMass surgical residents, Drs. Bret Baker and John Kelly, took it upon themselves to evaluate what the Surgery Department could do to reduce opioid prescription abuse and over prescription. They realized that the hospital represented an excellent access point to bring in unused/unwanted prescription medicine before it gets diverted into the wrong hands or causes groundwater contamination. They requested the creation of a drug-retrieval system near the University Campus pharmacy. Through a generous donation by Dr. Kavita Babu, division director of Medical Toxicology UMass Medical School and squire to a modest philanthropy to end SUD, as well as donations from the WDMS and the WDPH, the project is about to be launched. Dr. Babu and MS1 students Karcis and Harward describe the collaboration in this issue.

The aggressive treatment of post-operative pain is an essential part of surgical care, but how much pain do patients actually have after surgery and how much pain medication do patients really require?

While researching post-operative narcotic usage, surgery residents Brett Baker, John Kelly and Max Hazeltine realized that patients were frequently coming back for their post-operative visits with leftover opioids. Even with the option for “partial fills” of opioid prescriptions at their pharmacies, patients were returning to the office, reporting that they had only used one of the 20 oxycodone tablets prescribed. Together with medical students Olivia Karcis and Sardis Harward, the three surgical residents began developing a plan to remove unused opioids from our community.

Dr. Baker explained, “Our research goal was to attack the opioid epidemic from the prescriber side by examining actual post-operative analgesic needs. Very early on, we found that patients had large numbers of unused tablets and lacked access to responsible disposal. While some chose to throw them out or flush them, many more elected to keep their leftover pills, leaving them vulnerable to diversion and abuse. To combat the opioid epidemic on all fronts, we are responsible both as providers and as an institution to provide access to convenient and secure disposal services.”

Dr. Rich Perugini, a general surgery faculty member at the University of Massachusetts (UMass), was approached by the residents and students, who proposed an innovative solution – creating an opioid disposal strategy for the surgical clinic. Examining the problem from a convenience perspective, the post-surgical follow-up appointment was identified as a critical point in the patients' medical care. A medication disposal box where leftover tablets can be disposed of in a secure and convenient manner offered an ideal solution. Moreover, the presence of leftover tablets led many surgeons to decrease the number of opioid doses prescribed after outpatient surgery. Dr. Perugini has already noticed a difference, he said. “I love the idea that our residents and students saw a problem and came up with a solution to address it. I think that what they are doing is already changing prescribing habits.”

Across the houses of medicine, the opioid epidemic affects all patient populations. Opioid-related overdose resulted in 1,501 confirmed and 477 estimated deaths in Massachusetts in 2017, a mortality burden that reflects the nationwide increase in opioid-related deaths over the last 16 years.¹ Strikingly, the epidemic has disproportionately affected Worcester County, which now has one of the highest per-capita opioid-related mortality rates in the state.² Dr. Perugini explained, “We can all see the extent of the opioid epidemic. We, as surgeons, can play a role in removing opioids from our communities by prescribing more accurately for post-operative pain and by retrieving unused pills.”

With data showing that the volume of opioid pills in any given community parallels treatment admissions and fatal overdoses, the importance of prescribing the right number of opioid analgesics doses – and recovering any leftover medication – became increasingly clear. Since none of the UMass-affiliated campuses have on-site disposal options, the research authors began advocating for the installation of an opioid disposal box at the University Campus with the help of Worcester Public Health Medical Director Dr. Michael Hirsh and Chief John Luippold, of the University of Massachusetts Medical School Police.

Given his experience, Dr. Hirsh is no stranger to the importance of medication take-back programs and accessible medication disposal boxes: “As the medical director of the Worcester Division of Public Health, we provide easy access to return unused/unwanted pharmaceuticals in the city (and in the six surrounding towns that we serve) by supporting drug-retrieval systems in each of the police department headquarters in the seven municipalities.

“It was a no-brainer when Dr. Baker approached me about support for his efforts to give the patients at the University of Massachusetts Memorial Medical Center the agency to similarly dispose of these medications when they are receiving care in the hospital. I am very grateful that connecting Dr. Baker with the Overdose Prevention Fund has helped to move this important project forward.”

The Overdose Prevention Fund was created in August of 2016 and is supported by private donors to develop agile and innovative solutions to the opioid epidemic. At a meeting of the Overdose Prevention Fund team, the surgical team presented its research, and excitement for this progressive and innovative approach to surgical patients was palpable. Dr. Stephanie Carreiro, emergency physician/toxicologist and Overdose Prevention Fund volunteer, described the importance of this approach, stating, “Many opioid addicts recount their first exposure to opioids coming from pain medications found in their own homes after injuries or surgery. Removing prescription opioids from homes helps decrease the risk of that first exposure and subsequent addiction.”

Dr. Carreiro points to this effort as the type of solution needed combat opioid deaths. She said, “This project grew out of a clear clinical need, involves multiple departments and will have a measurable effect on our patients. The funds donated to the Overdose Prevention Fund are allowing us to move forward without the traditional timelines of grant funding or budget cycles. Our donors are already creating an impact.”

The Overdose Prevention Fund is comprised of a group of health care providers, medical students and community members that are actively working to prevent overdose deaths. Additional funding for this project (and others) is urgently needed, and donations can be made to the Overdose Prevention Fund at <https://w3.umassmed.edu/online donation/>.

Olivia Karcis, MS1, and Sardis Harward, MS1, are medical students at UMass. Kavita Babu, MD, is the Division Director of Medical Toxicology at UMass Medical School.

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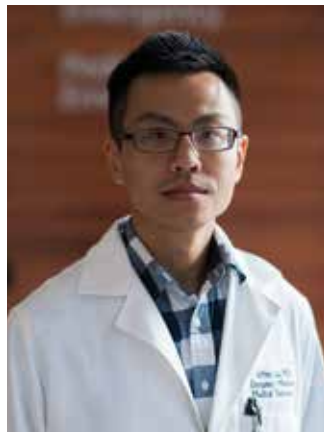
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Caring for Patients after Overdose: Reflections of the UMass Medical Toxicology Fellows

Katie Devin-Holcombe, MD, and Jeffrey Lai, MD



Katie Devin-Holcombe, MD



Jeffrey Lai, MD

The University of Massachusetts Department of Emergency Medicine is home to a two-year fellowship in medical toxicology. This fellowship focuses on the management of patients who present for care after poisoning or overdose. Additionally, the medical toxicology fellows serve as attendings in emergency medicine. Given the scope and magnitude of the opioid epidemic, senior fellows Katie Devin-Holcombe and Jeff Lai have spent two years caring for patients with substance use disorders, addiction and suicidality.

When asked about the role of toxicologists in the opioid epidemic, Dr. Devin-Holcombe said, “We treat patients who present after opioid overdose – both injection and prescription use and both unintentional and suicidal – on a daily basis. We are seeing more patients receive bystander naloxone – and occasionally require high doses of naloxone for reversal. And we facilitate accurate drug testing in cases where analytical testing will change the patient’s course.”

One of the biggest changes in the toxicology landscape is the availability of high-potency opioids like fentanyl. Fentanyl and its analogs are being found in substances ranging from heroin to cocaine to counterfeit pills (made to look like Vicodin or Xanax). Dr. Lai observes that drug-testing capabilities are being outpaced by the range and number of psychoactive substances. He said, “We have had several patients with exposure to fentologs that would have been undiagnosed by standard hospital drug screens. And we have seen individuals who thought that they were purchasing benzodiazepines present with classic signs of opioid toxicity and a confirmed high-potency opioid exposure.” The fentanyl analogs and other clandestine opioids pose enormous risk to both seasoned users as well as those patients buying counterfeit benzodiazepines on the street.

Per Dr. Lai: “Emergency departments are primary sites of resuscitative medical care after opioid overdose but have historically been poorly equipped to provide adequate substance use treatment planning before discharge. This results in a ‘revolving door’ phenomenon – patients may be successfully resuscitated multiple

times for opioid overdose before their fatal overdose.” Dr. Lai points to substance use disorder evaluations in emergency departments as an essential improvement, with more and more emergency departments beginning to initiate medication-assisted therapy with buprenorphine for their patients. Dr. Lai recently received a seed grant to study telehealth delivery of addiction medicine interventions to overdose. Innovations like these will facilitate access to addiction medicine across emergency medicine environments.

Even when addiction care is available, the response must be tailored to patients and their readiness to change. Dr. Devin-Holcombe noted, “Health care providers and families find it difficult to understand that patients who present after an overdose may not be ready to start a detoxification program. Families and providers often expect that we can just route patients into a detoxification program and their addiction will be cured. Patients have their own priorities – relationships and work being the most commonly articulated. But evidence and our own experience show that patients must be willing participants in their treatment to achieve long-term abstinence.”

Dr. Lai notes that there are many obstacles to addiction treatment. “Patients are frustrated by the barriers they face in getting help for their addiction.” He recalls a patient who had a syncopal event at home after using loperamide (Imodium), an over-the-counter anti-diarrheal medication that acts on opioid receptors in high doses but also causes life-threatening cardiac toxicity. “He had read about using Imodium to treat withdrawal online, but he had no idea that taking three or four entire boxes of Imodium at a time could affect his heart. He was shocked to learn how close he came to death.”

And opioid use disorders inevitably affect more than the individual user. Dr. Devin-Holcombe also recalls several cases in which children have called for an ambulance after finding a parent unresponsive due to overdose. She noted, “We recently had a patient present after an overdose. Her uncontrolled heroin addiction resulted in her losing custody of her daughter, putting stress on her family and worsening her addiction. It’s difficult to see the total effect of addiction on family and other loved ones, but we frequently encounter grandparents being thrust into early childhood caregiver roles again. When we treat the patient in front of us, we often can’t see the effect of their illness on others during a single encounter.”

Despite the complexities of caring for patients with opioid use disorders, emergency physicians are inevitably faced with the cost of this disease going untreated. Dr. Devin-Holcombe noted, “I have cared for multiple 20-year-olds after an overdose, with shocked parents finding them unresponsive at home. The grief of parents and families who learn of an overdose death in the emergency department is unimaginable. Part of our job is making the death notification to these families, and each time, we are reminded of the importance of compassionate care for addiction.”

Katie Devin-Holcombe, MD, and Jeffrey Lai, MD, are senior medical toxicology fellows in the Department of Emergency Medicine at University of Massachusetts Medical School.

Substance Use Disorder in Our Community

Matilde Castiel, MD, Commissioner of Health and Human Services



Matilde Castiel, MD

My work as a primary care physician has been dedicated to substance use and opioid addiction, particularly in communities of color. In 2009, we established a treatment facility called Hector Reyes House, which includes primary care, psychiatry and infectious disease physicians and a clinical director, in hopes of changing the mindset about incarceration.... It is not a "treatment."

Today, I sit as commissioner of Health and Human Services for the city of Worcester, trying to recreate the same treatment for everyone suffering with opioid addiction. We have done

some great work at the city level by having all police and firefighters trained in opiates and to carry Narcan. We have gone into the community and trained our nonprofits and for-profits, along with our city employees. We developed a quality

of life task force to help those with addiction, homelessness and mental health, which all go hand in hand. We partnered with APW to bring needle exchange in Worcester. We have opened kiosks to return drugs in the community; we have advocated for more treatment beds, recovery coaches, and the lists goes on.

But I have one dream I would like to see fulfilled to save our community from this opioid epidemic. I would like to see every physician, whether in a hospital setting or private practice, help us combat this epidemic. I would love to see every physician, no matter what specialty, see some of the patients who are suffering with addiction and to be trained in MAT (medically assisted treatment). I would like to see all residents and students being trained in addiction and to also be certified in Suboxone. Suboxone is a simple eight-hour course, and then you are able to prescribe.

Please help our community by all of us taking patients and giving them the help they need. If each one of us took five patients who are suffering with this disease and extended our expertise to them, maybe we would see our numbers of overdose and mortality decrease. This is my dream, and I hope everyone can help end this epidemic.



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Jargon 101

Gerard Aurigemma, MD



Gerard Aurigemma, MD

Like many in my medical school class of 1979, I aspired to become a "triple threat" academic physician: to be outstanding in the areas of teaching, research and patient care. In 2018, there is a fourth area to be mastered by medical students: jargon. It may be difficult to survive, let alone thrive, in the current medical environment without becoming a skilled jargonista.

Current medical jargon is a language that would not have not been recognizable to my medical school self. It borrows from a variety of sources. Business meeting patois. Popular culture. Psychobabble. Orwellian double-speak. It follows the general non-medical use English trend of adding words superfluously, possibly to soften their impact by implying volition. Thus, we used to say, "You have to do this," we now say, "You need to do this." Likewise, "Why don't you come in to work this weekend?" has become "Why don't you go ahead and come in to work this weekend?" A sociologist or psychologist might be able to explain why language has taken this non-confrontational turn at a time when people seem angrier than ever.

What follows is a short list of terms in common medical parlance, along with a libretto, broken down by categories.

Note that use of jargon is scalable. Multiple jargon building blocks may be used in the same sentence.

As a training exercise, I sometimes try to stuff as much jargon as I can into one sentence. With a little practice, one can generate a three-minute discussion which conveys little to no information: "Why don't we go ahead and circle back and get more granular around this discussion of physician empowerment and examine the current state workflow." That is, of course, unless you have a WebEx to jump on to....

* Note that this is subject to economy sizing. When one has a series of patients with a similar condition, a third is often thrown in at no extra charge.

** Fill in blank with medical, surgical, etc. (usually surgical).

*** I have no personal experience with this phrase but have heard that others use it this way.

	What is said	Translation
Scientific	"There's a signal...."	"We think...."
	"The consensus is...."	"A couple of us think...."
	"Clinical phenotype"	"A guy with...."
	"Not high enough priority to warrant publication"	"Junk"
Clinical	"Hypothesis generating"	"p value somewhere between 0.09 and 0.19 and/or n=7"; on occasion can mean "junk"
	"In my experience...."	"I once had a patient with...."
	"In my series...."	"I had 2 patients with...."
	"In case after case after case...."	"I had 3 patients with...."*
	"Shared decision-making"	"Don't blame me if this doesn't work out so well."
	"From a -- standpoint, we would be discharging him/her" **	"Please take this patient off our hands."
	"That's interesting"	"That's not interesting."
	"The data are conflicting." ***	"To be honest, I don't know the data but don't want to sound stupid," or "The last time I read about this was during the Clinton administration."
Administrative	"Scalable"	"More"
	"Let's circle back"	"Let's return"
	"Take a deep dive" also add "granularity"	"We've got another 15 minutes allotted to this meeting."
	"Current state"	"How we do it now"
	"Future state"	"You wish"
	"We want to empower you."	"We wish to give you more work."
	"You will have the opportunity."	"We wish to give you more work."
Miscellaneous	"Transparent"	"Opaque"
	"Did you try rebooting?"	"You fat-cat physicians, unlike those of here in the call center, know nothing about computers."
	"I see."	"Wait....what?"
	"Send me an email about this."	"I don't want to be bothered by this; I am betting heavily that you will forget about this between now and next time you log on to your computer."
	"Around"	"About"
	"I have to jump on a conference call (WebEx)."	"Don't let the door hit you on the way out," or "Please get lost."

Introduction: The 2018 Creative Writing Exposition

Robert Sorrenti, MD

Once again, *Worcester Medicine* has agreed to publish the blue-ribbon entries in the Creative Writing Exposition of the Massachusetts Medical Society (MMS) Arts, History, Humanism & Culture Member Interest Network (Arts MINS). The Arts MINS is a standing committee of the MMS, which provides a forum for members to explore, develop and participate in non-medical activities. These activities have ranged from bird-watching to bonsai-planting, from art exhibitions to astronomical viewing and include sponsorship of the Creative Writing Exposition.

Held about every other year, the Creative Writing Exposition invites members of the medical society to submit personal works of prose or poetry. The entries are evaluated by a panel, and those judged to be “blue ribbon” are printed in *Worcester Medicine*. This year, we had a number of entries, including works of fiction and non-fiction, as well as various forms of poetry. We appreciate the participation of all the authors in this exposition.

We know how busy doctors can be. This exposition highlights what some of our physicians do in their spare time. The entries being published in *Worcester Medicine* provide a glimpse into the personal lives of two physician authors. I hope you enjoy reading these pieces and join me in thanking the authors for sharing their thoughts with us.

In closing, let me invite MMS and MMS Alliance members to take part in some of the activities and events the Arts MIN sponsors and to join us on the executive council to promote new areas of interest.

Robert Sorrenti, MD, is the chairman of the Massachusetts Medical Society Arts, History, Humanism & Culture Member Interest Network (ARTS MIN).

A Patient-Doctor – Doctor Moment

Sarah Sullivan, MD

She walked into the room,
me lying still, wasting
away,
a tube stretched
from my nose
to the depths of my intestines,
the head of my bed
raised against the gravity.

She almost said hello with her nod,
almost thought, hello you crazy woman
who thinks you cannot eat.

— an English accent, a cold, buttery voice —
this is what you remember

But I could tell, so far as I recall,
that she did not quite think I was crazy,
that she/I/we knew, I could not eat at all,
that this — I — was a problem

meant for some special specialist.

Yet there I was,
another patient on her list.
I think I thanked god
I was not a patient
on my list, and wondered if
I'd ever have a list again.

She brushed a stethoscope
along my body,

— waves of nausea with each touch —
this is what you remember

reported some test result as:
normal,
said, you should be fine, dear,
thought, not much to do, here,
walked briskly out the door.

Death of My Father

Irma Szymanski, MD

I came to the USA in 1959 to advance my medical studies. Although I had planned to stay only for a maximum of two years, I kept extending my stay until it was more urgent to stay in this country than go back. That is, my life had changed; I was married with a child. But my parents had no intention of making such a big move; therefore, they remained in their beloved homeland, Finland. I visited them as often as I could.

All was well with my parents until a particular morning in 1983, when my mother found my father unresponsive. He was admitted to a hospital. She telephoned me every day and told me that his condition, a stroke, was not serious and that my flight to Helsinki was not necessary. However, after a few days, my father developed severe abdominal pains and was operated on. The whole outlook changed when his bowel was found to be necrotic. I flew immediately to Helsinki. During the flight, I was in constant fear that I would not arrive in time. I also felt guilty that doctors might try to keep him alive and prolong his suffering for my sake.

My arrival in Helsinki was ominous then. This country, which I am part of and which I love so much, had changed somehow. The slim fir trees looked unusually dark, and the powdery snow on the ground symbolized death for me. Nobody was meeting me at the airport. That is, my father was not there. I remembered this frail man who walked “funny” due to a knee injury and who was so skinny to hold, but always had a friendly, all-loving and all-forgiving smile. He had always met me at the airport, having driven there in his Citroen. This time, Finland did not seem to be completely mine any more.

I met my mother at our house. She was crying, but that was not unusual. She always cried when she saw me after a long absence or when I left her. The taxi waited while I dropped my bags at home and then we continued to the hospital. We did not speak much during the ride, a sign that things were not OK. In the luxurious new hospital, nicknamed “Hilton,” we went to my father’s room on the 11th floor. Two other patients were in the room. My father’s bed was closest to the window, from which one could see part of the city. I was apprehensive seeing my father so ill; I knew that the most difficult experiences of my life were now ahead of me. However, I was determined to go through them, no matter what. Here he was, my handsome father, lying in bed, his slender body suddenly mutilated by disease and treatments. His face was beautiful, quite unlined, with a rosy color. I noticed the lovely bone structure of his face and a high forehead. His eyes were closed. His hair was brown with some grey in it. His beard had grown to stubble. A tube went through his nose to his stomach and it was connected on the bedside to a plastic bag full of foul-smelling, dark brown liquid. He had been intubated and a small respirator was connected to a tube that came out of his mouth. He was also connected to a cardiac monitor, which showed a fibrillating rhythm, around 100 beats per minute. In addition, the urine output was being monitored and a transparent bandage was covering the operating wound on the abdomen.

I knew that my trip had been a race against Death. I had used airplanes, and doctors had used modern medical instrumentation on my behalf, but Death had used devious ways. Who had beaten whom?

I stroked my father, kissed him and I told him that I was with him and that I loved him. He opened his eyes, but I don’t know if he understood me. I also told him that my son Ari wanted to be there, too, but couldn’t. At that point, he made a grimace; he might have been in pain. The doctor told me later that earlier on that day my father had been conscious. He was then told that his daughter was on her way to see him. At that point, he had opened his eyes and tears came out. Then, I believed that he must have heard me when I talked. Everything could not be dead yet.

My mother and I stayed a couple of hours with him until the doctor, who

cared for him, came. He was a young blond man with a handsome cherubic face. His manner was a little bit like that of a funeral director – nice with a certain insincere touch. We discussed the present treatment. Should my father be on a respirator? I felt that it was not necessary, but that he should receive his antibiotics and a pain medication. After the surgery, he was not receiving anticoagulants any more. Then, the doctor removed the respirator and my father continued to breathe on his own while receiving oxygen. His breathing was labored. The doctor said that he was hyperventilating in an effort to correct the metabolic acidosis caused by the necrotic bowel. At that time, the doctor was able to arouse him by loud commands. He then received 3 mg of morphine intravenously. Following that, he did not seem to feel pain. After a few more hours, my mother felt very tired and sick watching him suffer. She went home. I decided to stay till the end. I felt that if my father must suffer the agony, I could at least watch him. I could not escape by going away. Besides, I did not want him to die alone. Maybe he could feel me being there, as I was squeezing his hand and kissing him.

Watching him did not turn out to be unbearable. I watched his cardiac monitor, and I was happy about every beat. It meant that he was still alive, here with me. It gave me joy. Then, I felt remorse thinking that every heartbeat, every breath only prolonged the agony, his bowel being in necrosis and black liquid draining from his stomach. There was nothing I could do to lessen the final struggle. His heart did not want to quit, it went on fibrillating. He kept on breathing as if there was some hope.

My mother had told me about the discussion the two of them had had on the night before he fell ill. He had said that when he dies, he hopes to go back to his mother. It was as if all his life he had had a “love affair” with his mother, who had been a loving, gentle soul like him. I had a feeling that I wanted to give him back to his mother, to the person who had given birth to him. I was imagining that she was waiting for him in this room. Then, suddenly, I felt like I was his mother, him being so helpless in his bed. I had been transformed from his daughter to his mother.

Then, another patient in the room became aggressive. A nurse came in and gave him an injection. Gradually, everything quieted down. The nurse rolled in a narrow cot for me to sleep on. I rested and fell asleep for one hour.

Then, my vigil started again. My father seemed to have pain. I asked for morphine for him. The situation remained stable for a while, and I wandered out of the room. I found a Psalm book. I looked up the topic of preparing for death. I read those Psalms. Then, I read some of them to my father. I prayed as I could, Lutheran, Jewish.

At 6:30 in the morning, the nurse gave me breakfast consisting of juice, yogurt, bread and coffee. I had not eaten anything since I came to Finland. I realized that my father couldn’t have anything. Why should I?

I went back to him. His pulse rate was now slow, 60-50 beats per minute, the blood pressure was 60/40 mmHg. His respirations were shallow. The two other men in the room slept deeply. I was happy that they did, leaving me alone with my father. His pulse rate dropped to 20. I was holding him. I said I loved him. I prayed. Suddenly, he had like an electric shock. He was vibrating. I was holding him tight. Then, there was no more breathing. The cardiac monitor recorded a straight line. The color disappeared from his face, which became greyish. It was still beautiful. The time was 7:19 a.m.

His death had been quiet. He had not bothered anybody. I went to tell the nurses, and they sent a physician to pronounce him dead.

I had thought that I could never stand this moment. Now it was over.

John J. Darrah, MD

1940-2017



“For more than 40 years, he cared for patients as an accomplished gastroenterologist at St. Vincent Hospital. ... His profession in many ways defined him, as he found gratification in building relationships with the patients he cared for and their families.”

As a colleague of John's since I came to Worcester in 1978, this excerpt from his obituary published in the *Worcester Telegram & Gazette* in September 2017 rings true, but, to some extent, does not do justice to the impact he had on the GI community of Worcester. As the era of diagnostic endoscopy was just beginning in the mid-1970s, he, along with Alan Brewster, MD, developed the Endoscopy Unit at St. Vincent Hospital and built the Division of Gastroenterology in the Department of Medicine. He worked closely with the GI Division at the University of Massachusetts and was an active participant in the training of fellows.

For many years, John was chief of the service at St. Vincent and also at the Fallon Clinic. Among his responsibilities was creating the on-call schedule for the division. After he stepped down as chief, he was drafted by all of us to continue as “chief scheduler” because of his careful bookkeeping and attention to fairness in covering holidays.

Sharing endoscopy time with John was a pleasure, since he always had some interesting story to relate about his escapades traveling the world with his wife, Patti. An avid reader of the *New York Times*, he would share articles on travel, food, the fine arts and even politics, frequently sparking animated discussions in the dictation room.

John was indeed loved by his patients. It was often difficult to cover for him, as his patients wanted him, and only him, to make therapeutic decisions regarding their care. “When will Dr. Darrah be back?” was the most frequent question I would hear from them.

On a personal note, I am grateful to John for his warm welcome to me in 1991, when I joined the staff at St. Vincent Hospital after Worcester City Hospital closed. I value our years of association as colleagues and as friends.

Elise A. Jacques, MD

Stuart H. Bentkover, MD

1948-2018



Our medical community lost a talented and beloved colleague on Feb. 26, when Stuart H. Bentkover, MD, succumbed to his 10-year battle with multiple myeloma.

Originally from Chicago, Stuart received his undergraduate degree from Princeton University in 1970 and his medical degree from Mount Sinai in 1974. He then served a General Surgery residency at Harvard Medical School/New England Deaconess and his Otolaryngology and Facial Plastic Surgery residency at Massachusetts Eye and Ear. After practicing at the Fallon Clinic from 1979-2002, he established a private practice in facial plastic surgery, reconstruction and rejuvenation at Worcester Medical Center, where he also continued to teach plastic surgery residents and present at national meetings and symposia.

It was Stuart's unparalleled passion for the geometry, symmetry and curves of rhinoplasty that led him to further develop his surgical artistry in caring for the rest of the face. Many of his fellow physicians count themselves and their family members as grateful patients, benefitting fully from his meticulous and thoughtful surgical expertise. While we know of his detailed assessment of any number of facial and otolaryngologic issues, it is telling that in the midst of his state-of-the-art facial plastic surgery center stood an exam room with classic ENT equipment, for he could never, and would never, fully abandon his Ears, Nose and Throat roots.

Outside the medical office, he was an accomplished trumpet player and indoor cyclist. He also devoted many years and countless hours to the Princeton Alumni Schools' Committee as its regional chairman and national liaison.

But he was, above all, a devoted husband, father and grandfather. He leaves his wife, Nancy, and three children – Adam (wife Kimberly), Shayna (husband David Katz) and Tori – and two grandsons, Daniel and Miller. To them, the Worcester District Medical Society sends its deepest condolences.

Susan M. Yeomans, MD

Rashmi Patwardhan, MD

1948-2017



My dear friend and esteemed physician, Rashmi Patwardhan, passed away unexpectedly on Dec. 6, 2017.

Rashmi grew up in Nairobi, Kenya, and completed medical school in Mumbai, India. He immigrated to the U.S. in 1976, and soon after, completed his residency at St. Vincent Hospital in Worcester, followed by a gastrointestinal fellowship at Vanderbilt. He returned to practice as an attending physician at St. Vincent and UMass Medical Center in Worcester, where he was known as an excellent teacher and mentor for a generation of students and trainees. He was an extremely talented, charismatic and caring physician, commonly going the extra mile to visit his patients across various hospitals and also in their homes. He was similarly well-respected by his colleagues for his ability and skill in caring for patients with complex illnesses. The entire medical community will remember him for the hard work, dedication, genuine care, generosity and passion that he brought to his profession.

Outside of work, Rashmi was a loving husband, a wonderful father to his three children and a doting grandfather to his two grandchildren. He loved playing tennis and golf, reading and listening to classical Indian music, and recently, he had taken up playing bridge. He enjoyed travelling with his wife, Neena, and spending time with his family at their summer

home in Cape Cod.

He was incredibly generous, always willing to support important community services. His large circle of friends will miss his warmth, generosity and compassionate nature. Having shared similar life arcs across our personal and professional arenas, Rashmi was a great friend to me over the past 40 years. He was truly an inspiring colleague, human and friend.

Kanti Kanzaria, MD

WORCESTER DISTRICT MEDICAL SOCIETY

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DEADLINE:
September 7, 2018

Please print all information

Nominator _____ Phone _____
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Name of Nominee _____
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2018 ANNUAL BUSINESS MEETING

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50 Year Members: Drs. Richard Gacek and John Harding



2018 Community Clinician of the Year Award Francisco Gil, MD



Outgoing President Jay Broadhurst, MD "passing the gavel" to incoming President Sahdev Passey, MD



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1. Completed Application
2. Current Transcript
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4. Essay stating your reasons for selecting a career in
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SCHOLARSHIPS ARE AVAILABLE TO 2ND-, 3RD- AND 4TH-YEAR STUDENTS
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