The Perspective

A quarterly newsletter published by the National Med-Peds Residents’ Association

What’s Inside

1 // President’s Welcome
2 // 2019-2020 Executive Board
3 // From the MPPDA & AAP
5 // National Conference 2019
7 // Every Vote Counts
9 // AAP Alerts
11 // Classifieds
12 // Spotlight On
13 // Essays
18 // Cases
26 // NMPRA Notes
Hello NMPRA Family!

Five months ago, we met in New Orleans for our National Conference and I thought a power outage at the New Orleans airport was the biggest hurdle NMPRA would face for the year. Then, a few months later, our entire website went down and we lost our ability to communicate with you all through email as we rang in the new year. Now, as you all are well aware, we face an unprecedented time in the history of our healthcare system as we brace ourselves as front-line personnel for the battle against CoVID-19 with fear of overwhelming our hospitals and depleting our medical resources. They say bad luck only comes in threes, right?

In spite of all the adversity we’ve faced this academic year, I have seen nothing but an invigoration of NMPRA and a strengthening of our Med-Peds community! We have seen the creation of numerous new medical student interest groups, completed a comprehensive combined fellowship guide, created a new advocacy platform, bolstered our focus on diversity, and hosted successful regional conferences. We are also hopeful to have a brand-new website up and running by the end of the year, providing a designated site for all things Med-Peds as well as brand-new resources for medical students, residents, fellows, and faculty alike. If all that wasn’t enough, we are also ecstatic to finally announce that we, alongside several other Med-Peds leaders, have sponsored the creation of The Med-Peds Journal (TMPJ) which will serve to unite our specialty and provide a place to publish those articles that aren’t quite Peds, aren’t quite Medicine, but are 100% Med-Peds!

I realize this is a busy time, but I hope you will be able to take a well-deserved break from pandemic talk to consider being a part of the future of NMPRA, helping us continue to grow and expand our reach. Applications for Director positions have been released, with applications for Board positions coming soon. From personal experience, I can say that the relationships I have made through this organization have been priceless, and I will forever cherish the memories and connections I have made. If you have questions about any of the positions or the application process, please do not hesitate to reach out. We look forward to reading your applications!

As mentioned, this has been a tough but all-around rewarding year, and I am eternally grateful for YOU – our NMPRA members – whose enthusiasm is infectious and whose hard work is awe-inspiring. YOU are why Med-Peds is the greatest specialty in the world and why we have been able to continue to grow together. THANK YOU for all that you do and for your continued support of NMPRA and our programs. We hope we can continue to make you proud and lead our specialty into a successful new decade (with hopefully less "excitement").

It is with JOY that we started the year and with JOY that I hope we end it.

Stay safe and healthy,

Colby Dendy, MD, MPH
NMPRA President 2019-2020
Internal Medicine and Pediatrics, PGY4 & Chief Resident
East Carolina University/Vidant Medical Center
president@medpeds.org
2019-2020 executive board

President: Colby Dendy
President-Elect: Maximillian Cruz
Past President: Derek Pinkerton
Treasurer: Jonathan Phillips

Secretary: Sasha Kapil
PR Secretary: Sophia Urban
Webmaster: Bailey Hansen
NMPRA Coordinator: Kelly Barnes

Dir Community Service/Outreach: Sophie Sun
Dir Recruitment/ Med Students: Blake Lowe
Dir Health Policy/Advocacy: Georgia Farrell
Dir Professional Advancement: Burton Shen
It’s admittedly an awkward time to be giving updates about national medical education organization activities in the time of economic uncertainty and a pandemic. There is a lot of confusion and anxiety around CoVID-19, and we are all feeling it. At the same time, it’s important to be clear-eyed about the infection at the local levels, about doing the simple things like communicating clearly; having an index of suspicion; advocating for testing on behalf of our patients; learning to don and doff correctly; taking care of patients, ourselves, and one another.

It’s also important to realize that the hard work that was there before the pandemic is still here to be done and will be here afterward. By this I mean working toward the goals of diversity, equity, and excellence in medical education. It means using our voices to amplify the voices of those who are unheard. It means advocating for ideas and policies that are just.

The work of the MPPDA reflects these goals. Over the last several years we’ve worked to improve not only the diversity of the Med-Peds workforce, but also to improve the sense of inclusion. We’ve partnered with NMPRA and AAP to have a consistent, annual presence representing Med-Peds at the SNMA and LMSA conferences. This year, we also created and disseminated resources for best practices in recruiting for diversity. These are small steps, but ones in the right direction. There is more work to be done, and it can only be done in collaboration with other organizations. For example, we are working on creating a network of Med-Peds advisors to help students who go to schools without an affiliated Med-Peds program to get strong career and application advice.

Advocacy has been a theme over the last several years as well. In fact, creation and dissemination of advocacy curricula have been the most requested curricular elements from program directors over the last 3 years. The MPPDA has organized and provided resources for programs to implement advocacy curricula that extend beyond the pediatric training advocacy requirements. Over the last year, I’ve been working with MPPDA members and NMPRA leadership to create an advocacy communication network — we named it CALM — Collaboration, Advocacy, Learning, and Mentorship. A timely acronym, I’d add. The idea is to use Slack (a free messaging system) as a communication platform to share lessons learned about various advocacy initiatives, both curricular and “real world.” We will create channels in Slack to organize these discussions — the first two channels will be around the two key citizen empowerment happenings in 2020 — the census and voter registration. You can read more about the importance of these in this newsletter, and the idea in Slack is that we could communicate and collaborate around local efforts. As time goes on, we hope additional channels will be added such that we will have an ongoing, robust sharing of advocacy activities.

Thank you all for the work you do every day — on behalf of our patients and families, and the communities in which we live, work, and play. The work of dealing with a pandemic and dealing with the social drivers of health is, broadly speaking, similar. We must provide excellent patient care inside the hospitals and clinics, and we must be voices for public health and advocates outside of the hospitals and clinics.

Michael Aylward, MD
President, MPPDA
Associate Professor of Medicine and Pediatrics
University of Minnesota

NMPRA medpeds.org
We begin this spring in unprecedented times for healthcare in the United States. As every organization that we all belong to reaches out to us to see how they can help, I am heartened to see the medical community pulling together to face what is already a tremendous challenge. This is a challenge that we have rarely seen, testing every area in which we work in ways that we have seen in relatively limited geographic regions with disasters such as Hurricane Katrina and 9/11.

It is notable that the courage and professionalism of the people that I work with and know throughout the Med-Peds community stand out. Many people have reached out in the true Med-Peds way, seeing across both Pediatrics and Medicine boundaries to see how they can help and how they can be of service to others, whether it be sharing what they have learned from their experience, or just to support others.

All I can say right now is to please continue to do what you do as a community. We are truly a special group.

Thank you, and be well,

Mike

Michael Donnelly, MD, FAAP, FACP
Chair, Section on Med-Peds (SOMP), AAP
Chair in Pediatrics, Professor of Medicine and Pediatrics
Georgetown University
What a whirlwind weekend we had celebrating the joy of Med-Peds down in the Big Easy! Our National Conference was a fantastic success with great participation from a motivated group of residents, medical students, and attending physicians. All were excited to share how our unique specialty has allowed them to flourish in their careers and create a sense of family within the Med-Peds community. Through lectures, poster and case presentations, workshops, and a very special keynote address, our time in New Orleans provided us with the opportunity to reflect on how far we’ve come as a field, network with like-minded physician leaders, reconnect with friends and colleagues, and work together to help forge the future of Med-Peds!
Conference Program

◊ “Finding Joy in Med-Peds” Lecture Series
  • Transitional Care in Underserved Populations by Dr. Matthew Cappiello
  • Finding Joy as a Med-Peds Hospitalist by Dr. Rachel Peterson
  • From My Patients to My People: Finding Joy Through the Human Connection by Dr. Himani Divatia
◊ Breakout Workshops in Advocacy, Networking, and Program Director Perspectives
◊ Poster Presentation Session
  • Winner – The Hidden Morbidity of TEN: Two Patients with Vulvovaginal Complications by Erica Hidu, MD (Maine Medical Center)
◊ Keynote Address
  • Dr. Allen Friedland, Med-Peds Program Director at Christiana Care
  • Dr. Lawrence Cutchin, first Med-Peds graduate from the UNC residency program

2019 Grant & Award Winners

International Travel Grant: Dr. Abbie Goodman (ECU/Vidant Medical Center)
Advocacy/Community Service Grant: Drs. Sarah Soliman and Eric Zuniga (LAC + USC Medical Center)
Quality Improvement Grant: Dr. Rebecca Moore (Brown University)
Resident Clinical Case Competition: Dr. Ariel Nash (Albany Medical College)
Medical Student Clinical Case Competition: Prarthana Patel, MSV (UMKC SOM)
Gary Onady Award: Dr. Kathryn Nagel (Yale University)
Howard Schubiner Award: Dr. Valien Kondos (Christiana Care Health System)
Medical Student Interest Group Award: Brody School of Medicine at ECU
Research Grant: Dr. Austin Wesevich (Duke University)
Voting Advocacy and the Importance of the Census

Voting is an important step in civil engagement. It’s important for both us as individuals, but also important to encourage our patients to be able to practice their right to vote.

Things to think about with voting:

- If you moved states recently, verify that you have updated your voting status. Different states have different requirements around how long ahead of election day you need to be registered to be eligible to vote. Submit the necessary paperwork sooner rather than later to ensure your ability to vote!
- Think ahead if you are on a long shift on an election day (either primaries, local or national levels – all are important!). Will timing work for you to go to the polls before or after work? Would it be better to absentee ballot for the election? Does your program have other coverage in place for allowing individuals to get to the polls?
- Learn about your local elections in addition to learning about the national elections.

Helping our patients practice their right to vote:

- Does your hospital do any voting drives to help patients get registered to vote? Are there ways to further spread this registration? What can you do within your clinic/your workspace to further our patient’s ability to vote?
- Sometimes individuals are hospitalized on election day. There are ways to register last-minute for an absentee ballot in situations like this (though this varies state by state). Learn what your institution does to help patients in this situation.

Places to learn more information about voting, including your state’s rules on voter registration, hosting registration drives, and factors that are specific to encouraging voting in both healthcare and nonprofit settings:

http://communityhealthvote.net/toolkit/
https://www.nonprofitvote.org/
https://www.rockthevote.org/
The Census

What is the census?

- Every 10 years our constitution requires that we count our population, learning both total numbers of population, but also importantly where the population is distributed and who they are.
- The census determines how the representatives of the House of Representatives are split among the states.
- It helps with the allocation of billions of federal programs such as Medicaid, SNAP, Head Start, and block grants for various community health programs.
- With the exception of rural Alaska, distribution of the census invitations begins in March. The census takers reach out in multiple ways including: mailing invitations to houses, going to soup kitchens to count individuals experiencing homelessness, going to college campuses, and going to individual houses who haven’t responded to the initial request.

Encouraging our patients to respond to the census increases the likelihood of critical funding for resources.

Do you want the opportunity to be able to discuss topics around advocacy and advocacy education with other Med-Peds physicians? NMPRA and MPPDA are working together to create an advocacy network for Med-Peds physicians to be able to communicate nationwide around topics around advocacy. Stay tuned for more information on how to get involved!
PLEASE JOIN US! Each year during the National AAP Conference, the Section on Med-Peds (SOMP) offers an educational program with CME and MOC credit for Med-Peds physicians.

Sunday, October 4, 2020
1:00 pm – 5:00 pm

1:00-1:10 PM  Welcome
Moderator: Kristin Wong, MD, FAAP, FACP

1:10-2:30PM  Vaccine-Preventable Epidemics: The Downstream Effects of Vaccine Refusal
David Cennimo, MD, FAAP, FACP, FIDSA, AAHIVS

2:30-2:45 PM  Break

2:45 PM-4:00 PM  The Psychology of “Anti-vaxers” and How to Motivate Them
Shane Owens, PhD, ABPP

4:00-4:30 PM  Abstract Oral Presentations
Moderator: Jennifer F. Gerardin, MD, FAAP

4:30-5:00 PM  Posters and Abstracts

5:00 PM  Adjourn

5:00-6:00 PM  Reception (sponsored by the National Med-Peds Residents’ Association)
CALL FOR ABSTRACTS
AAP Section on Med-Peds
for the AAP National Conference and Exhibition

October 2-6, 2020  San Diego, CA
OPEN: February 28, 2020  CLOSE: April 15, 2020

The Section on Med-Peds is looking for clinical cases that have a particular "Med-Peds" perspective. Cases should be a clinical vignette that is applicable to both Pediatrics and Internal Medicine; presenters are expected to be either Med-Peds residents or faculty. Abstracts will be accepted for poster and oral presentations. Abstracts may have been presented at a local, state, or regional meeting; however, the abstract may not have been previously published.

QUALITY IMPROVEMENT PROJECT ABSTRACT SUBMISSIONS AND MOC PART 4 ELIGIBILITY
In 2020, SOATT will be accepting abstracts describing quality improvement projects. If you are planning to submit an abstract describing a quality improvement project you have participated in, you may be eligible for 25 American Board of Pediatrics (ABP) Maintenance of Certification (MOC) Part 4 points.

REQUIREMENTS FOR MOC-ELIGIBILITY FOR POSTER AND ORAL PRESENTATIONS

- At a minimum, poster/oral presentations presented at the Section/Council program should include:
  - The specific aim of the quality improvement project that describes the target population, desired numerical improvement, and timeframe for achieving the improvement
  - The process for improvement (e.g., QI methodology utilized, how the intervention was implemented, how tests of change were used to modify interventions, who was involved, etc.)
  - Graphical display of data: a minimum of baseline and 2 follow-up measurements
  - A discussion of the degree to which the aim was achieved
  - Factors that affected success
  - Next steps for the QI project
- Part 4 MOC credit will generally not be given for descriptions of studies to assess whether an intervention is effective, the development and validation of tools that could be used for quality improvement, quality measure development, or retrospective studies of administrative claims data.

Poster/oral presentations describing projects already approved for MOC Part 4 credit are not eligible

Please visit AAPexperience.org/abstracts to review general guidelines that apply to all submissions.

Submit your abstract at: https://aapexperience.org/abstracts/

Jennifer Gerardin, MD, FAAP, Abstract Chairperson
JGerardin@chw.org
WANTED: Twitter Co-Editor for Teaching Rounds

The social media medical education group Teaching Rounds is looking for a co-editor to develop and manage a Twitter presence. Since 2017, Kristen Ehrenberger (Med-Peds, University of Pittsburgh Medical Center) and Tom Anderson (Nuclear Radiology, University of Pennsylvania) have produced and disseminated daily “clinical pearls” as part of the #FOAMed (Free Open Access Medicine) and #FOARad (Free Open Access Radiology) communities on Facebook and Tumblr. Now they need someone to adapt the content for parallel posting on the micro-blogging platform Twitter. Teaching Rounds’ weekly themes alternate between pediatric and adult medicine topics, making the position a perfect fit for a Med-Peds resident or physician. We try to scale the posts from basic science early in the week through clinical science in the middle of the week, typically ending on Sunday with a patient perspective. The ideal candidate is a humanistic medical educator.

Duties include:

- Contributing draft posts to the Teaching Rounds collection
- Responsibly sourcing multimedia illustrations
- Adapting posts, as needed, to the Twitter Format
- Interacting with other Twitter users interested in medical education on social media

This position is unpaid, as Teaching Rounds charges no access fees and pays for no advertising. We do this in our copious spare time (ha!). Prior Twitter experience not required. If you are interested, please email a CV and a cover letter explaining what you would bring to Teaching Rounds. **Deadline is Sunday, April 12th, 2020.** Depending on the level of interest, leading candidates will be interviewed by Skype/Google Hangout/Zoom. We will announce the new Teaching Rounds Twitter Editor in the next edition of this newsletter, as well as on respective social media platforms.

Find us at Teaching Rounds on Facebook Groups or at teachingrounds.tumblr.com

Email applications to TeachingRoundsTumblr@gmail.com
It was exciting, it was exhilarating, and it went by in a flash! It was my first experience at a professional medical conference, and it was awesome! From the moment I first learned that I would have the opportunity to participate at the AAP Conference in New Orleans, I was totally thrilled. I wanted to put forward my best effort to make sure our booth at the conference was a huge success. At last year’s conference, I was able to participate without attending. This year was different. I would actually get involved in our Physician Health and Wellness research and information efforts from end to end. Doing so as a third-year medical student was absolutely amazing. Leading up to the conference, our entire team worked hard to develop a set of questions for Cohort 2 of our PHW research population, setting up the questionnaire that we planned to distribute at the conference. Additionally, we prepared information on Health and Wellness guidelines, as well as information about aromatherapy. We even got sample bottles of different aromatic oils to give away to participants.

Finally, the day of the conference arrived. New Orleans was the place to be that day, and actually, apart from the football game going on that evening, the AAP Conference was the talk of the town. Even the cab drivers knew about the big conference happening in town. I was awestruck by the grand conference facilities, and our booth was huge! We arranged everything and got ready for the visitors looking to learn about our activities, and hopefully willing to take our research questionnaire, as well as take away a sample of aromatic oil. As the conference heated up and more and more people started doing the rounds and visiting our booth, it was like playing a tennis match. Very soon, we were all extremely busy, parrying questions on the one hand, handing out information and oils, and giving out our QR code so people could take our questionnaire right there. It was a busy and exciting afternoon, as we got multitudes of visitors, engaged them in conversations, and handed out information. We did not even have time for lunch, though I did find some time to do the rounds and get some swag from the other exhibitors in the hall! By the end of the day, each of us had met and talked to a number of physicians, and most importantly, we had had real and lasting conversations about health and wellness! Tired, and a little bit hungry, giddy from the excitement of having attended my first real conference, I returned that evening to the hotel room. I was thrilled to have been part of the AAP conference, excited that we had data for our research, and amazed with the entire experience! I look forward to next year’s conference in San Diego!

Abhishek Surampudy, MS-3
Sidney Kimmel Medical College at Thomas Jefferson University
Have A Seat and Let’s Talk

There I was, sitting in an intensive care unit room, a place where life and death often come into a sedated, violent collision. Silently, I sat and watched tears streaming down her cheeks. I leaned over to touch her right knee with my right hand. With my left hand, I passed her a box of tissues that I had placed conveniently within my reach earlier. I had just told a woman that her mother’s condition was worsening rapidly. My first breaking-the-bad-news conversation went as well as I had hoped. However, despite having performed the necessary steps in a challenging scenario, something fundamental was missing. In a poignantly intimate moment between a physician and a family member, there was an emotional gap between us.

During my medical school orientation, the Dean compared the academic rigors of medicine to “drinking water out of a fire hose.” Learning the science of medicine was, indeed, daunting. In addition, there were courses where students worked with standardized patients to learn how to interact and conduct themselves. As part of those courses, students were presented with a long checklist including door-knocking, hand washing, sitting down, introducing oneself, and so on. The more checkboxes one received, the better the score. The art of medicine soon became another exam to master. The crippling debt of medical education left little room for error in academic performance. In turn, the seemingly endless pursuit of good grades turned my quest of becoming a humanistic physician into a robotic version of checking boxes. This trend continued into my clinical rotations. Along the way, the emotional connection was lost and replaced by scripted lines and pre-orchestrated reactive behaviors.

Did the emotional gap stem from my checklist mentality of medicine, the desire to protect my personal wellness or my idealistic image of an emotionally balanced physician? Regardless, my unwillingness to express vulnerability was preventing me from feeling fulfilled during that interaction. Balancing the art and science of medicine will be a lifelong endeavor for me. Although learning how to navigate through difficult conversations is a must in medical school and post-graduate education, it is equally essential, in my mind, to look past the routine and reach beyond the emotional barrier. After all, I am striving to become more than just an automaton, but rather, a human being treating another human being.

Minh Nguyen, DO
Internal Medicine/Pediatrics PGY-2
Western Michigan University Homer Stryker M.D. School of Medicine
In Retrospect: The Med-Peds Intern

Two well-placed PVCs is how I ended up here.

It started here: general medicine at the University, my attending nowhere to be seen, my senior tending to the septic, and the interventional cardiologist reading me the riot act at 11PM. He ditched his steak dinner, he’ll have me know—he worked a sixteen-hour day and was really fond of steak—and drove the twenty minutes to the hospital after the page to talk about the two well-placed PVCs.

New admissions on the Gen Med service have the unhappy tendency of showing up from, say, Wisconsin, with no notice—occasionally with little but a sheet of paper with labs on it, one ominous number highlighted. Like a lactate of 8. Which pretty well took care of my attending and senior when I was called to the bedside of 80-year-old man with hepatic encephalopathy and chest pain.

But as a medicine intern 10 months in, chest pain is my middle name—what’s it like? Where does it radiate? EKG, troponin, aspirin, done and done.

As a medicine intern 10 months in, I had not done a general medicine rotation yet and had never been at the University.

10:30PM, what’s it like? Where does it radiate? Troponin, EKG.

EKG. Oooohhh—

“For how long has this been going on?” I asked the hopelessly encephalopathic man breathing fast and clutching his chest. Turn to the nurse. “So...what do I do if I think someone is having a STEMI?”

Okay, look of alarm from the nurses, like shouldn’t you know, medicine intern 10 months in?!

10:35PM, what’s it like? Where does it radiate? Troponin, EKG. Oh, right aspirin, that I can do, order aspirin.

10:36PM, aspirin ordered.

10:37PM, stroke of genius. Who do I call when I have no clue and just need a nudge in the right direction? Dial 0.

“University, how may I direct your call?”

“So...hello. I’m Sharon, one of the interns. What do I do if I think someone is having a STEMI?”

“What’s a STEMI?”

That should’ve been my first clue. I explain.
“OHHHH a STEMI. I think you activate the cath lab and call a STEMI code. Would you like me to do that for you?”

Thank God for operators. “Yes please, thanks!”

Two well-placed PVCs is how I ended up here, two PVCs in a row right as the machine was reading V1-V3.

“AND AS A MEDICINE RESIDENT THE ONE THING YOU SHOULD KNOW IS HOW TO READ AN EKG, ESPECIALLY THIS FAR IN THE YEAR,” said one of five cardiologists who was paged—the only one, incidentally, motivated enough to leave his steak dinner to visit me that evening.

Admittedly, he was biased—I personally think and thought there are at least ten things a medicine resident should know, like dosing Lasix is a good idea, but I digress.

The cardiology fellow, who was one floor down and holding the first call cardiology phone the whole time, wouldn’t even speak to me. Street cred with the nurses—gone. Patient, however, remained delightfully delirious, so we could still be friends.

“AND WHAT MEDICAL SCHOOL DID YOU EVEN GO TO?” was the parting shot from my new interventional friend.

“Well,” said the nurse who, if not impressed, was at least sympathetic, “better too careful, right?”

I haven’t done this before, I wanted to say, along with a hundred other feel-sorry-for-me-I’m-sorry things. I said, “Huh.”

“And by the way—can you put that order in for aspirin so I can scan it?”

Two PVCs is how I ended up here. Huh.

Sharon Li
Internal Medicine/Pediatrics PGY-3
University of Minnesota
Laugh Lines

“Elah’kwa – thank you,” she said, poking her head around the corner of the exam room as she left our visit. “You examined me well.” I smiled: “Thank you for letting us take care of you.” She smiled back, eyes twinkling, turning away and out of the room. Mrs. E was in her late 60s, turquoise-wearing and with a face that had come to remind me so much of Zuni—stoic and tanned, with gentle creases framing her mouth and eyes. Those deep lines, I thought, told a story—born of long hours spent in the desert sun, clambering over bread ovens out back or planting seeds in fields of dusty red clay. They spoke, perhaps, of hard times and pain endured, of sleepless nights spent worrying over flying fists or the son who came home too late, the scent of booze trailing behind him. But, thankfully, those wrinkles also said (and perhaps most of all)—this face has seen much laughter. Always that.

I came to the Indian Health Service in Zuni with the goal of experiencing full-scope rural practice, as well as the resource limitations that go hand-in-hand with this. As I someday hope to practice in a limited resource setting—either globally or locally—I hoped this would help hone my procedural and exam skills. Though I did not fully realize it, when I arrived I was also quite burned out. Back-to-back call months and a grind of countless inpatient days leading up to my arrival in Zuni had taken their toll. I was tired, not infrequently felt incompetent, and found it hard to get excited about taking care of patients or gaining new clinical knowledge. Connections with people—not to mention a healthy curiosity and love for a good differential diagnosis—had been a big part of what initially attracted me to medicine. Catching up on email when I arrived in Zuni, I filled out my ACGME survey—an annually released questionnaire that assesses residents’ clinical and educational experiences in their respective programs. This year, the survey also included a section on burnout and well-being, geared at assessing resiliency among surveyed residents, with questions like “In the past 3 weeks, how often did you have an enjoyable interaction with a patient?” “How frequently did you feel you connected to your work in a deep sense?” Or, sadder still—“How often did you feel your basic needs were met?” I clicked through: “rarely,” “never,” “sometimes.” I was appalled by my own answers. In the wake of this realization, Zuni would ultimately provide just the reprieve I needed, a chance to slow down, check in, and reconsider what I loved about doctoring in the first place.

Zuni proved to be a dramatic shift from my own home institution and the academic teaching hospitals in which I work, where the “best” resources—specialty consultants, high tech surgical interventions, and diagnostic tools among them—abound. Should I need to, I can get an MRI and refer someone to Neurosurgery within the hour. A skilled wound care team and in-person Dermatology consult are just a page away. While specialty consultants play a tremendous role in the care we provide, reflecting on my time in Zuni, I think this abundance of resources can also isolate us from our patients. I wonder if we are also less likely to think critically about those we care for. Back home, it can be all too easy to let someone else dress a wound or throw a stitch, or to hand off the next line of problem-solving to a more expert consultant, believing they will know better. In so doing, though, we miss out on precious patient interactions and opportunities to use our clinical reasoning. Both, I realize now, are crucial to keeping us happy and fulfilled as doctors. Not least because these lend weight and confer value to—and thus let us take pride in—the work we do.
Last week, a pleasantly intoxicated young gentleman wandered into the Emergency Department here, fresh blood oozing from a deep and jagged laceration across his cheek. His brother had come at him with a whiskey bottle, he explained. Would I be so kind as to fix him up? As I sutured—2 deep stitches, 7 superficial—he told me about his drinking—“a 12-pack a day,”—how it had fueled this altercation, and how he needed to get out of Zuni to make things right again. After he swayed his way out of the ER later that day, I felt sad—for his illness and what had happened between him and his brother—but also thankful, for the quiet moment shared between us. Those moments made me feel like a doctor again, and for this I was unspeakably glad.

Mrs. E appeared in Urgent Care yesterday, here to get a skin biopsy on her left ankle, where a mysterious rash had appeared, spreading since I saw her last. The doctor manning Urgent Care called me over—“Since you saw her in clinic, would you like to do her biopsy?” Without hesitation, I hear myself: “Absolutely.” “Any thoughts about what’s going on with her?” he follows. I am not sure. But as I gather tools—lidocaine, punch, gauze, suture kit, sterile gloves—a twinge of excitement rises up, a long-forgotten delight in learning how to do something new, and also of puzzling over this latest affliction. Before Zuni, this might have stirred up anxiety, made me heavy with incompetence in not knowing.

In the exam room, I greet Mrs. E. She is effusive with her thanks, and more elah’kwas shower the room. I turn her foot over—flexed, then extended—in my hands and consider what I know, differential beginning to take shape. Normal renal and liver function, history of ANCA positivity, family members with IgA nephropathy. A palpable rash that is non-blanching, erythematous—almost purpuric. It did not itch, nor was it painful. “Vasculitis?” I wonder aloud. IgA nephropathy, microscopic polyarteritis, GPA, Churg-Strauss, PAN, cryoglobulinemia, a paraneoplastic syndrome...a viral hepatitis? I cannot know which of these it will be. And perhaps—more likely than not—it will be none of them. Not knowing is ok, I think to myself, throwing a single stitch to close the opening I’ve rent across her ankle. Even if you don’t have the answer right now, you have thought long and hard about the possibilities today. You will keep looking for answers and ask for help should you need it. You promise her this. She smiles, laugh lines radiant, and you smile back.

Diana L. Whitney, MD
Internal Medicine/Pediatrics PGY-3
University of Colorado Denver, Aurora, CO

Acknowledgements: Dr. Whitney wishes to thank the providers and patients at the Zuni Indian Health Service, particularly Kay Redman, MD, Dylan Stentiford, MD, and Rebecca Bak, MD. She would also like to thank Anne Frank, MD and Elizabeth Toll, MD, for their mentorship and gracious editing assistance.
Use of ketamine to rapidly wean chronic opioid use in a patient with sickle cell disease

Authors
Jonathan Li, MD¹, Shalini Vadalia, MD¹, Elissa Miller, MD²³

1. Combined Internal Medicine-Pediatrics Residency Program, ChristianaCare & Nemours A.I. duPont Hospital for Children, Wilmington, DE
2. Chief, Division of Palliative Medicine, Department of Pediatrics, Nemours A.I. duPont Hospital for Children, Wilmington, DE
3. Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, PA

Brief Summary
We report on an 18-year-old patient with sickle cell disease (SCD) who was becoming progressively reliant but resistant to opioid analgesia and was admitted to our children’s hospital for a ketamine-assisted rapid opioid wean. This case illustrates the utility of ketamine for rapidly weaning patients off chronic opioids.

Introduction
Ketamine is a common anesthetic agent that has been gaining attention for its use as an opioid-sparing analgesic at sub-anesthetic doses. It has been shown to be effective in managing pain refractory to opioids and to be beneficial in reversing opioid-induced hyperalgesia (OIH). Patients with sickle cell disease (SCD) are a unique population at high risk for developing chronic pain reliance on opioids. Given the known risks of opioid use, this case illustrates the utility of ketamine for rapidly weaning patients off chronic opioids.

Case Description
An 18-year-old female with SCD type SS presented with a complaint of pain and persistent, escalating opioid requirement 24 hours after discharge from an outside hospital. She denied that her pain was due to acute vaso-occlusive crisis (VOC), and reported that this was her “chronic pain” that “would not go away.” Her SCD was complicated by history of acute chest syndrome, internal carotid artery occlusion requiring chronic transfusion therapy, frequent VOCs resulting in chronic pain, and depression. Over the past 9 months, she presented over 20 times to various hospitals for pain and was admitted 8 times for inpatient pain management. She spent more than half of the previous two months admitted for intractable pain management. During these admissions, she been treated with IV opioids including hydromorphone and fentanyl. Within 24 hours of her most recent hospital discharge, she had already used 10 of her 12 prescribed tabs of oxycodone-acetaminophen. Due to her escalating opioid medication use and uncontrolled pain in the setting of no active VOC, there was concern for opioid-induced hyperalgesia and a high likelihood of opioid withdrawal if opioid therapy was not weaned under close surveillance. The decision was made to offer a ketamine-assisted, rapid opioid wean in the pediatric intensive care unit (PICU). The patient agreed to the recommended plan and expressed hopefulness that the ketamine infusion would help to reduce both her pain and her increasing reliance on opioid medications.
The ketamine dosing protocol utilized in this study was designed on previously published reports.\textsuperscript{1–3} Ketamine was started at 0.1mg/kg/hr and titrated up to 0.35mg/kg/hr during the opioid wean which started at 30 milligram morphine equivalents (MME)/day to match her outpatient dosage (Table 1 & Figure 1). She was also started on a multimodal analgesic regimen consisting of gabapentin, hydroxyzine, acetaminophen, ibuprofen, and distraction techniques in the form of physical/massage/art/music therapy. Lorazepam was used to minimize ketamine side effects. Her main side effect was visual hallucination of “bubbles.” Her Withdrawal Assessment Tool (WAT-1) scores remained at 0 throughout the taper (refer to Table 2 for WAT-1 scoring). Following the wean, she was transferred out of the PICU where she was stable off opioids without vital sign abnormalities. However, she continued to report intractable pain and endorsed active suicidal ideation. Her sickle cell percentage was 30.8% indicating her pain was likely unrelated to acute VOC, as our patient reported. Imaging did not suggest avascular necrosis as a source of her pain either. It was suspected that a major component of her pain was neuropsychiatric, and in the setting of her active suicidal ideation, she was transferred to a medical psychiatric unit for continued management.

![Table 1: Opioid and ketamine taper schedule with WAT-1 scores](image)

![Figure 1: Visual representation of opioid and ketamine taper](image)
Table 2: WAT-1 Scoring

<table>
<thead>
<tr>
<th>Previous 12 hours</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any loose/watery stools</td>
<td>No = 0</td>
</tr>
<tr>
<td>Any vomiting/retching/gagging</td>
<td>Yes = 1</td>
</tr>
<tr>
<td>Temperature &gt; 37.8°C</td>
<td>No = 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-minute pre-stimulus observation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State Behavioral Scale (SBS)</td>
<td>≤ 0 or asleep/awake/calm = 0</td>
</tr>
<tr>
<td></td>
<td>≥ 1 or awake/distressed = 1</td>
</tr>
<tr>
<td>Tremor</td>
<td>None/mild = 0</td>
</tr>
<tr>
<td></td>
<td>Moderate/severe = 1</td>
</tr>
<tr>
<td>Sweating</td>
<td>No = 0</td>
</tr>
<tr>
<td></td>
<td>Yes = 1</td>
</tr>
<tr>
<td>Uncoordinated/repetitive movement</td>
<td>No = 0</td>
</tr>
<tr>
<td></td>
<td>Yes = 1</td>
</tr>
<tr>
<td>Yawning or sneezing</td>
<td>No = 0</td>
</tr>
<tr>
<td></td>
<td>Yes = 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-minute stimulus observation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Startle to touch</td>
<td>No = 0</td>
</tr>
<tr>
<td></td>
<td>Yes = 1</td>
</tr>
<tr>
<td>Muscle tone</td>
<td>Normal = 0</td>
</tr>
<tr>
<td></td>
<td>Increased = 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Post-stimulus recovery</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to gain calm state (SBS ≤ 0)</td>
<td>&lt; 2 min = 0</td>
</tr>
<tr>
<td></td>
<td>2 – 5 min = 1</td>
</tr>
<tr>
<td></td>
<td>&gt; 5 min = 2</td>
</tr>
</tbody>
</table>

Total Score (0-12)

Table 2: WAT-1 Scoring

Discussion:
Sickle cell disease (SCD) is a hereditary hemoglobinopathy caused by a single base pair alteration from the wild-type B-globin gene. This change promotes abnormal B-globin protein interactions in the deoxygenated state which causes erythrocytes to become sickle-shaped. These sickled-cells are rigid, obstruct narrow capillary vessels, and trigger painful ischemic episodes aka vaso-occlusive crises (VOC). Over time, recurrent episodes of VOCs cause long-term neurochemical changes which present clinically as chronic pain. Chronic pain from SCD has been reported to be worse than postoperative pain and equivalent to cancer pain; it affects 29% of adults and 40% of pediatric SCD patients (ages 8-18 yrs). In 2017, the Analgesic, Anesthetic, and Addiction Clinical Trial Translations Innovations Opportunities and Networks-American Pain Society Pain Taxonomy (AAPT) published evidence-based guidelines to diagnose chronic pain in SCD (Table 3). Based on these criteria, the patient here presented has chronic pain. However, her history of frequent escalating opioid use without pain relief over the past year and persistent, uncontrolled pain in the absence of VOC raises concern for opioid-induced hyperalgesia (OIH).

Core Diagnostic Criteria for Chronic Pain Associated With SCD:

1) Lab test confirmed diagnosis of SCD
2) Reports persistent pain for most days over past 6 months in single/multiple locations
3) At least 1 in the region of reported pain:
   - Palpation elicits focal pain or tenderness
   - Movement elicits focal pain
   - Decreased range of motion or weakness
   - Evidence of skin ulcer
   - Evidence of hepatobiliary or splenic imaging abnormalities (e.g. splenic infarct, chronic pancreatitis) in region
   - Evidence of imaging abnormalities consistent w/ bone infarction or avascular necrosis in region
4) No other diagnosis that better explains the signs and symptoms

Table 3: AAPT Diagnostic Criteria for Chronic Pain Associated With SCD
The use of ketamine in managing SCD pain is widely reported with promising results. In one large, single-site study, Sheehy et al. reported on ketamine use for analgesia among n=181 patients with SCD pain in the outpatient setting. Dosing was dependent on whether the patient was opioid naive (0.05-0.4 mg/kg/hr), opioid tolerant (0.05-1 mg/kg/hr), or had opioid-induced hyperalgesia (1 mg/kg/hr). Ketamine reduced pain scores by a mean of 2 points (out of 10) and MME use by 1 mg/kg with an average pain reduction of 1 point by day 2 and 3 points by day 5 of therapy. Overall, 60% of patients with SCD had greater than 20% pain reduction from continuous ketamine infusion; 52% had a greater than 20% reduction in MME intake, suggesting ketamine may also be used safely to reduce opioid use in the outpatient setting. Tawfic et al. reported similar success using a combination ketamine-midazolam regimen to reduce ketamine side effects; they found that after 1 day, morphine requirements decreased by a mean of 30 mg/day and pain score from a mean of 9.1 to 5.7. Lubega et al., in a direct comparison of IV ketamine 1 mg/kg to IV morphine 0.1 mg/kg for acute severe VOC pain in children 7-18 years old (n=240), found that ketamine had less treatment failure (28.3% vs 40%) and faster onset of pain relief; however, patients receiving ketamine were 11.3 times more likely to experience medication side effects. Similar experiences have been reported in pediatrics in the setting of high-dose opioid use among mechanically ventilated children.

Despite the growing body of literature supporting concomitant use of ketamine with opioids as an opioid-sparing approach to pain management, the use of ketamine as a mechanism to wean patients off high-dose opioids is a less-commonly reported but important and emerging practice in the field of medicine. Quinlan et al. report on a cohort of 8 patients with chronic pain, opioid-related tolerance, and suspected hyperalgesia who were admitted for a 5-day subanesthetic ketamine infusion with allow withdrawal from their opioids. All patients tolerated the protocol without hemodynamic instability (blood pressure), over-sedation, or poorly controlled pain. Both Uprety et al. and Jennings et al. report cases of SCD pain uncontrolled by escalating doses of opioids and non-ketamine adjuvant therapy that were ultimately controlled after initiating ketamine. Similar reports have also emerged among adults, however, despite these positive experiences, the data to support this practice is still limited and consensus guidelines have yet to be established. This case is amongst the earliest to describe the use of ketamine to wean a pediatric patient with...
SCD off high-dose opioids and further illustrates the potential role ketamine holds for managing pain related to SCD.

Conclusion
Ketamine provides a safe and effective method to rapidly wean patients off high doses opioids, especially in the setting of OIH. In some cases, it may even help control pain in patients where opioids fail. Concomitant use of ketamine with opioids may prove useful for managing patients with recurrent pain. This is particularly true for patients with SCD who represent a population where pain episodes are almost guaranteed, begin in childhood, and have a high baseline risk of both requiring frequent opioids and developing chronic pain. This case is amongst the earliest to describe the use of ketamine to wean a pediatric patient with SCD off high-dose opioids and further illustrates the potential role ketamine holds for managing SCD pain.

Author Bios
- Dr. Jonathan Li is a resident physician of Combined Internal Medicine-Pediatrics at ChristianaCare and Nemours/Alfred I. duPont Hospital for Children interested in clinical immunology, environmental health, and advocacy.
- Dr. Shalini Vadalia is a resident physician of Combined Internal Medicine-Pediatrics at ChristianaCare and Nemours/Alfred I. duPont Hospital for Children interested in global health, hospital medicine, and critical care medicine.
- Dr. Elissa Miller is division chief of Palliative Medicine at Nemours/Alfred I. duPont Hospital for Children, clinical assistant professor of Pediatrics at Thomas Jefferson University; fellow, American Academy of Pediatrics; member, American Academy of Hospice and Palliative Medicine; and an invited lecturer and author of medical journal articles.

References


Anisocoria: Which pathway do you choose?

Author
Bridget Rafferty, MS3
1. Penn State College of Medicine, brafferty@pennstatehealth.psu.edu

Learning Objectives
- Interpret physical exam findings of anisocoria
- Identify life-threatening causes of anisocoria
- Differentiate Horner’s Syndrome from oculomotor palsy

Case
A 54-year-old woman with stage IV esophageal carcinoma hospitalized for pneumonia and acute hypoxemic respiratory failure secondary to feeding tube displacement was found on physical exam to have new-onset anisocoria of 5mm left and 4mm right. Previous exam noted both pupils equally round and reactive to light. Stroke protocol was initiated due to a nonreactive left pupil with concern for intracranial aneurysm.

Neurological exam showed intact mental status, weakened motor strength in upper and lower extremities bilaterally, diminished reflexes in bilateral lower extremities, intact upper extremity reflexes, and intact sensation and coordination. Cranial nerve exam showed anisocoria of 5.57mm left and 3.53mm right in bright light, with increased degree of anisocoria in the dark. Partial ptosis of the right eye was noted. Remainder of cranial nerve exam was unremarkable. Patient’s husband remarked that right eyelid began intermittently drooping two weeks prior.

Review of chest CT report two months prior revealed “increased soft tissue at right side of the base of the neck with mildly increasing size of right lower paratracheal lymph node,” likely indicative of disease progression. Patient was diagnosed with Horner’s syndrome secondary to tumor compression of the sympathetic chain and further diagnostic workup for brain attack was deemed unnecessary.

Discussion
Anisocoria is a condition of unequal pupil size, and its diagnostic key is determining which pupil is abnormal in order to distinguish between the two causes: impaired constriction or impaired dilation. Pupils must be examined in bright and low light settings in order to perform a complete physical exam. The dilator muscles of the iris are controlled by sympathetic nerve fibers coursing through the neck on sympathetic chain ganglia which join the ophthalmic division of the trigeminal nerve (CN V1); these fibers also supply the smooth muscle of the eyelid. Constrictor muscles of the pupil are innervated by parasympathetic fibers from the ciliary ganglion that travel along the oculomotor nerve (CN III) to supply the pupillary constrictor muscle.

Differential diagnosis for anisocoria is broad, and physical exam can distinguish impaired constriction (parasympathetic) from dilation (sympathetic). Differential must include the emergent intracranial aneurysm and carotid dissection. Arteries near the oculomotor nerve—internal carotid, posterior communicating, posterior cerebral, and superior cerebellar—can develop aneurysms at their junctions. Impingement of CN III presents as a non-constricting (“blown”) pupil, and immediate surgical intervention is warranted to prevent rupture. Carotid artery dissection compresses the cervical sympathetic chain, causing miosis of Horner’s syndrome and requiring emergent intervention.
Differential for anisocoria of urgent concern includes Horner’s syndrome associated with malignancy. In known malignancy, Horner’s can indicate progression or metastasis; in unknown malignancy, it can be the presenting sign. Malignancies include Pancoast tumor of the lung and unusual causes, such as osteochondroma of the clavicle or cervical schwannoma arising directly along the cervical sympathetic chain. Anisocoria is most commonly associated with benign conditions that range from congenital to physiologic to medication-related. Ultimately, the etiology is varied, and ruling out emergent and urgent causes is paramount to patient safety.

References

A new web page has been created especially for the AAP Med-Peds Community!

Welcome to the Section on Med-Peds (SOMP) Collaboration Site

Welcome to the AAP Section on Med-Peds Collaboration Site. This is the new "home" for SOMP members to chat, obtain SOMP documents, learn about how to get involved, and to see what the section is offering in education, research and advocacy.

Key Areas of Work

About Us

SOMP is committed to advocacy, education, improving communications, and research related to the practice and training of physicians in combined Internal Medicine and Pediatrics.

Learn more >>

Engagement Opportunities

SOMP aims to get involved in the work of the section.

Learn more >>

Education

Check out education programs just for you.

Learn more >>

Visit the collaboration page at https://collaborate.aap.org/medpeds/Pages/default.aspx
When Breath Becomes Air // Paul Kalanithi // At the age of 36, on the verge of completing a decade’s worth of training as a neurosurgeon, Kalanithi was diagnosed with stage IV lung cancer. One day he was a doctor treating the dying, and the next he was a patient struggling to live. When Breath Becomes Air is an unforgettable, life-affirming reflection on the challenge of facing death and on the relationship between doctor and patient from a brilliant writer who ultimately became both.

The Anatomy of Hope // Jerome Groopman // Why do some people find and sustain hope during difficult circumstances, while others do not? What can we learn from those who do, and how is their example applicable to our own lives? The Anatomy of Hope is a journey of inspiring discovery, spanning some thirty years of Groopman’s practice, during which he encountered many extraordinary people and sought to answer these questions. He explains how to distinguish true hope from false hope, and how to gain an honest understanding of the reach and limits of this essential emotion.

Complications // Atul Gawande // In gripping accounts of true cases, Harvard surgeon Gawande explores the power and the limits of medicine, offering an unflinching view from the scalpel’s edge. Complications lays bare a science not in its idealized form but as it actually is – uncertain, perplexing, and profoundly human.

The Emperor of All Maladies // Siddhartha Mukherjee // A magnificent, profoundly humane “biography” of cancer – from its first documented appearances thousands of years ago through the epic battles in the 20th century to cure, control, and conquer it to a radical new understanding of its essence. An astonishingly lucid and eloquent chronicle of a disease humans have lived with – and perished from – for more than 5000 years.

The Bright Hour // Nina Riggs // Poet and essayist Riggs was just 37 years old when initially diagnosed with breast cancer – one small spot. Within a year, she received the devastating news that her cancer was terminal. In her memoir, Riggs explores how to make the most of all the days, even the painful ones, and how literature can be a balm and a form of prayer.
Hospital // Julie Salamon // A warts-and-all exploration of the struggles suffered and triumphs achieved by America’s healthcare professionals working at Maimonides Medical Center in Brooklyn, NY. Unraveling the financial, ethical, technological, sociological, and cultural challenges encountered every day, Salamon tracks the individuals who make this complex hospital run, from doctors and patients to cooks and ambulance drivers.

The Spirit Catches You and You Fall Down // Anne Fadiman // An exploration of the clash between a small county hospital in California and a refugee family from Laos over the care of Lia Lee, a Hmong child diagnosed with severe epilepsy. Lia’s parents and her doctors both wanted what was best for Lia, but the lack of understanding between them led to tragedy.

The Diving Bell and the Butterfly // Jean-Dominique Bauby // In 1995, Bauby was working as the editor-in-chief of French Elle when he found himself the victim of a rare kind of stroke to the brainstem. After 20 days in a coma, he woke in a body which had all but stopped working: only his left eye functioned, allowing him to see and, by blinking it, to communicate. Almost miraculously, he was soon able to express himself in the richest detail and eventually to compose this extraordinary book.

Mountains Beyond Mountains // Tracy Kidder // In medical school, Paul Farmer found his life’s calling: to cure infectious diseases and to bring the lifesaving tools of modern medicine to those who need them most. Kidder’s magnificent account shows how one person can make a difference in solving global health problems through a clear-eyed understanding of the interaction of politics, wealth, social systems, and disease.

Black Man in a White Coat // Damon Tweedy // An examination of the complex ways in which both black doctors and patients must navigate the difficult and often contradictory terrain of race and medicine. In this powerful and moving book, Tweedy explores the challenges confronting black doctors and the disproportionate health burdens faced by black patients, ultimately seeking a way forward to better treatment and more compassionate care.

Dying Well // Ira Byock // Byock, a prominent palliative care physician and expert in end of life decisions, has dedicated his life to preventing anyone from dying in pain or dying alone. Through the true stories of patients, he shows us that a lot of important emotional work can be accomplished in the final months, weeks, and even days of life. He also teaches families how to deal with doctors, talk to loved ones, and make the end of life as meaningful and enriching as the beginning.
This newsletter is published as a collaborative effort between the following organizations:

NMPRA
NATIONAL MED-PEDS RESIDENTS' ASSOCIATION

MPPDA
Medicine-Pediatrics Program Directors Association

medpeds.org @nmpra