

Winter 2021

The Perspective

A quarterly newsletter published by the National Med-Peds Residents' Association in collaboration with the Med-Peds Program Directors Association & the AAP Section on Med-Peds

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President's Welcome

Happy 2021, Med-Peds family!

A lot has happened in the past few months, with some events bringing us hope and others reminding us of how much work we have left to do. As I enter the final months of my term as NMPRA president I want to just thank each and every one of you for making the Med-Peds community the amazing community that it is. Serving in this role has allowed me to see so many of you in a very different light- be it students, residents, or program directors. I have truly enjoyed my interactions with you all, and have learned so much from you all this past year.

I will keep it brief as I don't think there is much to say that hasn't already been said the past few months, but if there is one message I want to drive home, it is that we have so much work to do to create more equitable environments. We need more equitable residency recruitment processes, we need more equitable residency training, we need more equitable healthcare systems and processes for our patients, etc. It can feel overwhelming at times, and it is, but the only way we get closer is by each and every one of us making this something that we fight for. We must support those who have been fighting these battles with more than just our words. We must support them with our own time, energy, and action. We spend so much money on fancy clinical trials, development of new drugs, etc., yet I often wonder how much greater an impact we would have on patient morbidity and mortality if we simply invested all that time, energy, and money into creating more equitable systems and processes. We must do better.

NMPRA has spent a lot of time both externally and internally discussing DEI this past year. We are working with other organizations to further our DEI efforts and will have announcements on some of these initiatives and opportunities for student and resident involvement soon.

I am also excited to let you know that we are working with AAP-SOHM and SHM to put together a webinar to help Med-Peds residents determine whether to pursue PHM fellowship training, and will announce more details in the next few weeks. We are also weeks away from revealing our updated website, it looks amazing right now and we can't wait to make the final switch. The Med-Peds Academic Channel (MPAC) on Cureus has had some great submissions, and we encourage all of you to continue to submit your articles! We have a lot of other projects in the works and will keep you updated as plans finalize and we have more information to share.

Thank you all for the work you have done this past year. I am proud to be part of such an incredible group of students, residents, and physicians. As always, please reach out with any thoughts or questions, or just to catch up!

#MP4L

Maximilian Cruz

NMPRA President 2020-2021

President@medpeds.org

NMPRA Statement

Our NMPRA board stands in solidarity with Dr. Princess Dennar and the residents of Tulane; Med -Peds, and categorical alike. We are reminded yet again of just how much work needs to be done. Assuredly every day individuals are experiencing discrimination and racism across all programs, many still facing it alone. We call on each and every Med-Peds resident to rise up and fight for our URM and BIPOC colleagues; for far too long they have carried on these fights with little to no support. We must demand change. We must demand policy change. We must demand increased budgets to hire more individuals to take on DEI efforts. We must pay those who are currently doing it alone their worth. We must question each of our own institutions and demand transparency. We stand with #DrDennar. We stand with the residents at Tulane who are so suddenly left without their greatest advocate. We stand with all those who find themselves in similar circumstances, whose voices are not yet heard.

We are aware that these words alone are not sufficient, and are working on next steps and actions, but want to be thoughtful and purposeful with these so that they are truly meaningful and impactful. We will keep you updated when we finalize these. Please know that we are here to represent you: our resident and student members. As always, please reach out if there is anything that we can do for you, or just for a person/space to talk.

The Medicine Pediatrics Program Directors Association (MPPDA) has also released a statement which we have attached that we encourage all to take the time to read.

We are saddened at the circumstances that prompted this correspondence, but grateful for so many of you who are already putting energy into anti-racist efforts, and optimistic for the actions that will come out of this. Together we are stronger.

#MP4L

- NMPRA Board

From the MPPDA:

MPPDA would like to thank NMPRA for the support given to their residents.

Link to MPPDA statement regarding recent events.

[MPPDA Statement.pdf \(medpeds.org\)](#)

Additional Statements:

[Alliance for Academic Internal Medicine \(AAIM\)](#)

[Association of Pediatric Program Directors \(APPD\)](#)

AAP Section on Med-Peds

Happy 2021, Everyone!!!

As we reflect on 2020, the year was filled with challenges and conflicts we wish we did not have. We have seen COVID 19 challenge our healthcare system with now over 480,000 US deaths and an increase in healthcare burnout. We have seen many images on television and social media. We have seen hatred and we have seen kindness. We have seen division and we have seen solidarity. We have seen loneliness and we have seen togetherness.

All this has led to self-examination for many of us, personally and collectively. We have recognized that inclusion and diversity cannot take a holiday off. That we must continue to make progress toward the racial equity that Dr. Martin Luther King Jr. and others have fought for so tirelessly. That all of us on a local, regional, national, and international level must thrive towards a commitment to ensuring equity and ending systemic racism.

2021 has started with many initiatives and events. We have inaugurated a new President and our first Black Asian female Vice President with a potential for the most diverse presidential cabinet in our history. More of the population will be receiving COVID-19 vaccinations, and the AAP is exploring vaccine confidence and hesitancy with a goal towards developing resources to effectively communicate about immunizations. Barriers will be torn down that will help patients reach better health care and to help build more inclusive, diverse, and equitable communities.

From the AAP section of Med-Peds, we are committed to actively work towards our strategic goals. We have sent out notices for members to join various AAP and ACP committees. We are looking to engage graduating Med-Peds residents and early career Med-Peds clinicians to be involved in the Section of Med-Peds. We are exploring regional events or webinars of interest to join together with members of SOMP, NMPRA, and MPPDA. We will be using recent Med-Peds residency program situations as a focal point of our strategic goals for addressing diversity, equity, and inclusion. We are continuing our emphasis on physician wellness and well-being especially during these challenging times.

I also want to remind everyone who is looking to publish scholarly activity to submit to Cureus. We are in the second half of our first year as The Med-Peds Journal home for submissions!!!! Please consider submitting articles to the Med-Peds Academic Channel (www.Cureus.com). Our submission process is **free if you submit to the channel** as opposed the general Cureus journal.

In observance of MLK day and Black History month, I remember and want to share the following quote: Struggle is how you make a greater person of yourself, a greater nation of your country, and a finer world to live in.

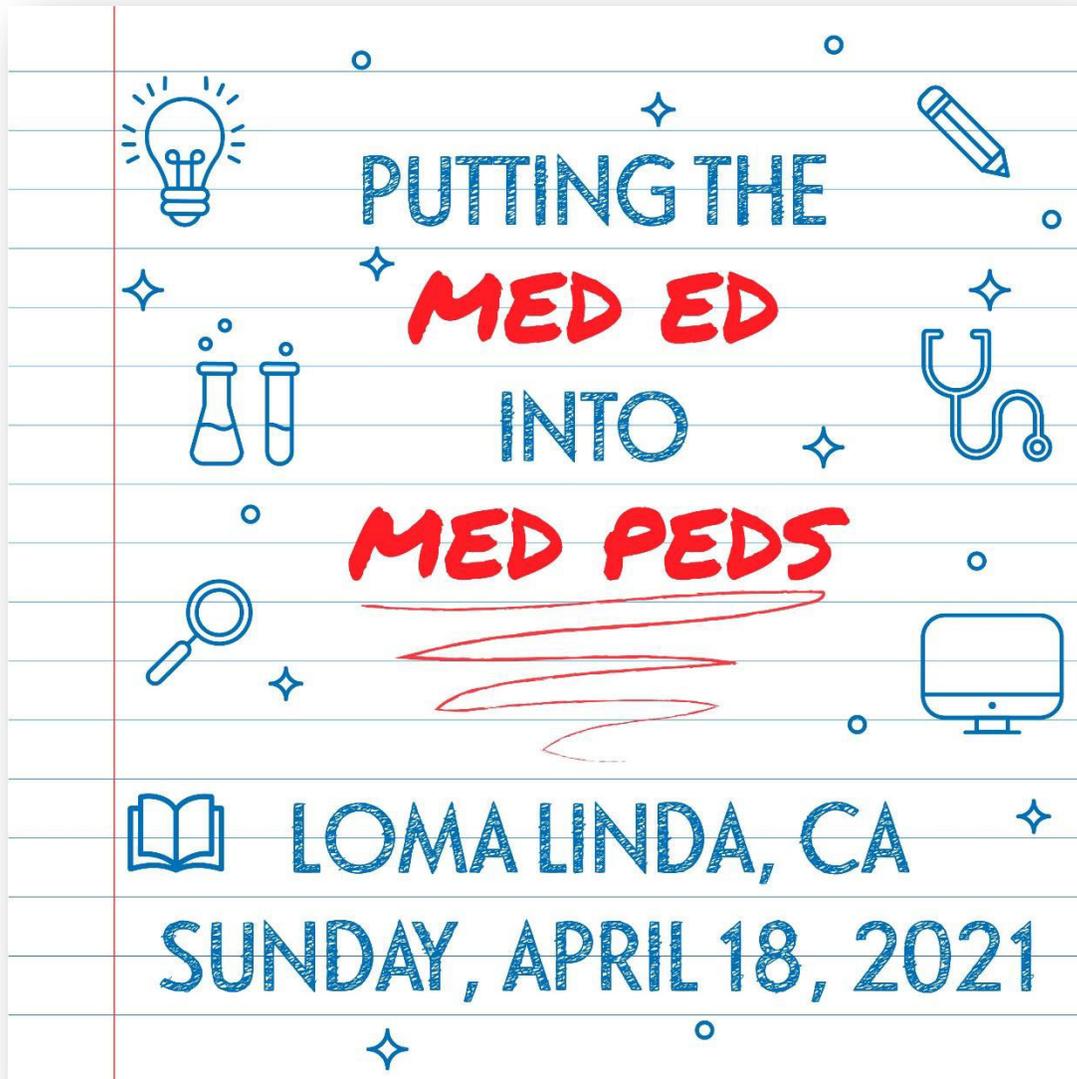
Stay safe! As always, if you have any topics that you would like the SOMP to address, please feel free to reach out.

Jayne

Jayne Barr MD MPH FAAP FACP FHM
Chair, Section on Med-Peds, American Academy of Pediatrics

NMPRA Regional Meeting

PRESENTING



WITH KEYNOTE SPEAKER

Benjamin R. Kinnear, MD, MEd

University of Cincinnati Medical Center and Cincinnati Children's Hospital Medical Center

Classifieds

Introducing the new Med-Peds Academic Channel (MPAC)!!



- Forum created to promote scientific advancement and dissemination of knowledge in the field of Med-Peds
- *Peer-reviewed publications on various topics unique to the practice of Med-Peds*
- Open to submissions including original articles, review articles, case reports, technical reports, editorials, and posters!!

Check out more details on the website:

<https://www.cureus.com/channels/med-peds>

****Please submit under “academic channels” to submit to MPAC rather than to cureus.com****

Spotlight On

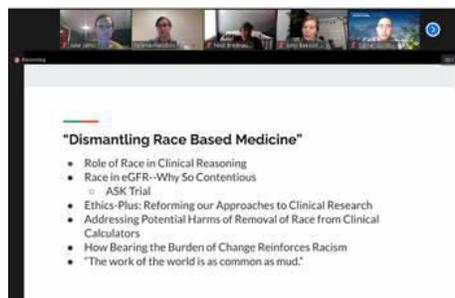
Development and Implementation of a Race in Medicine Curriculum at the University of Colorado

Race and racism in the United States greatly influence the unequal social experience of health. Race is a social construct, yet is often inappropriately employed in medicine as a proxy for innate biological or genetic differences between groups of individuals. In the United States, the majority of physicians have an implicit bias favoring White Americans over Black Americans. A substantial number of medical students and trainees hold false beliefs about racial differences; the misuse of race in medical school curricula may in fact propagate and reinforce physician bias. Given the innumerable examples in recent months of the deeply entrenched structural racism that continues to permeate medical practice and medical education, the development of anti-racist educational curricula for residents is more important than ever. While the topics of structural racism, stigma, and bias have gained increased attention across Graduate Medical Education (GME) in recent years, there is not a standardized approach to providing anti-racist training to residents.

In response to the lack of anti-racist education available for medical trainees, Dr. Claudia Douglas, an alum (class of 2020) of the University of Colorado (CU) Med-Peds program and current Adolescent Medicine fellow at the University of Washington, developed and piloted a Race in Medicine curriculum in collaboration with Dr. Daniel Goldberg, a public health ethicist at the Center for Bioethics and Humanities at the University of Colorado. Since spring of 2020, this anti-racist curriculum has been integrated into the CU Med-Peds residency's regular academic education.

The longitudinal Race in Medicine curriculum is delivered on a quarterly basis during residency-wide Academic Half Day education sessions. Each session is split into an interactive lecture portion and a discussion portion. Lectures cover a range of topics, including the historical roots of stigma, racism and bias in medicine and their influence on the relationship between people of color and the healthcare system. Contemporary examples used to demonstrate the legacy of racism in medicine include race corrections in clinical algorithms and the effects of racism on COVID-19 infection and vaccination rates. The discussion part of the sessions aim to foster critical reflection and provide residents with tools that they may employ in daily practice to combat and dismantle structural racism. Feedback from resident evaluations on these sessions has been very positive. Quotes from residents include: "It made me proud to be part of our residency program" and "Engaging, thought provoking, uncomfortable (as it should be)."

Our resident-led Race in Medicine curriculum was launched in 2020 and the plan is to make it a permanent part of our education, using resident and faculty feedback to add new content and find innovative ways to dismantle structural racism in and outside of our clinic and hospital walls. Eventually, we hope to create modules related to topics covered in our curriculum that may be implemented on a broader scale, thus increasing accessibility of anti-racism training for interdisciplinary learners and educators at the multiple medical campuses affiliated with the Denver Health and University of Colorado residency programs. We look forward to sharing our work with other Med-Peds programs too!



Reference: Amutah, C., Greenidge, K., Mante, A., Muniyikwa, M., Surya, S. L., Higginbotham, E., Aysola, J. (2021). Misrepresenting race — the role of medical schools in propagating physician bias. *New England Journal of Medicine*. doi:10.1056/nejmms2025768

Essays

We Thank Martin. But No More Martyrs.

#JusticeForDrKhoury

Black women are the largest victims of medical injustice, yet they only comprise 2% of American physicians. This sobering dearth is further perpetuated by an oppressive medical education system that has abused innumerable healthcare (and non-healthcare) heroes. Dr. Aysha Khoury, a true physician educator was wrongfully fired by her institution, the Bernard Tyson Kaiser Permanente School of Medicine. After the institution requested to share her experiences with racism, she became its latest victim, and was left with anxiety and unemployment. As a Black man in medicine, I am not only hurt, but enraged. I hear Dr. Khoury. I believe Dr. Khoury. I stand with Dr. Khoury.

In the immortal words of Brother Reverend Dr. Martin Luther King Jr., “there comes a time when one must take a position that is neither safe, nor politic, nor popular, but he must take it because conscience tells him it is right.” “In the end we will remember not the words of our enemies but the silence of our friends.” He shows us today the power of a voice. To those often silenced or disenfranchised, the opportunity to speak is sacred. Because Black people, specifically Black women are often silenced, it is imperative for us to speak up when the opportunity presents itself. You should speak up too. Not to completely represent any group or identity, but to add more real perspectives into the world. Every unique thought is a data point that helps legitimize our united cause of highlighting the truth. Without your voice, others will speak for you. Then, your story is untold. If anything, my ask of you is to speak when you know it's right!

I often think of the martyr Martin. Brother Dr. King is my hero, and the largest reason I am an Alpha Man. He fought for our “beloved community,” and he was a servant leader who changed the world. Would he have chosen to die, had he known his impact today? Truth be told, we don't get the luxury of knowing. Huey P. Newton, in the essays from the Minister of Defense, declared “A revolutionary must realize that if he is sincere, death is imminent.” Am I committed to social and medical justice, as well as fighting for our beloved community? Indubitably. Will I nail myself to the cross for that fight? Negativo. My life goal is to become the Dean of a medical school. Other than the lives I'm destined to impact and inspire in this journey, I must help heal patients! I can't do that dead! At the same time, “Our lives begin to end the day we become silent about things that matter.” We see with Dr. Susan Moore you can dedicate your life to medicine, and still go out secondary to the same racist system you gave your all to fight against. May she rest in power and may we not have peace until this medical(education) system changes. Death, or even abuse, should not be the prerequisite for justice. More specifically here, and in 2021, we cannot allow abuse to follow justice either.

When speaking up—actually, when allowing the heart to speak—the most difficult part is mustering the courage to say what's right. When the heart speaks, it isn't only heard; it is felt! I could only imagine how Dr. Khoury's heart felt before, during, and after this session. Other than her recollection of sheer anxiety, she was ultimately punished for her vulnerability. She was fired as an educator and subsequently lost her role as a physician in the clinic. These are undoubtedly two of her dreams and vessels of love; my heart is aching as things still unfold.

The medical giant, Bernard Tyson, said of Kaiser Permanente the week of his passing, “I get to be who I am and create a different organism inside of that group dynamic.” As a Black man leading Kaiser

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Permanente, he is a bright beacon of hope and change in this gilded field we call medicine. His unique perspective and vision still live today in the school bearing his name. I was lucky to rotate with KP during my third year in medical school; I was amazed at how progressive and ideal the system is. Tragically though, in his own institution of learning, it's clear we cannot be who we are. His inaugural class of future physicians overwhelmingly condemns their instructor's maltreatment and wants her to return. Dr. Aysha Khoury herself understands the power of this moment and importance of this fight for our beloved community. At the same time, this story is not one she wants to tell. I doubt neither she, nor the institution, is aiming to be a martyr of medical education due to racism in this nation. **

Silence can be ignored. However, when voices converge, the echo resounds in all communities. Let's use our voices to secure #JusticeForDrKhoury!

PS. If you can't say #BlackLivesMatter, please don't quote the American legend on MLK Day.

This essay was written (On MLK Day 2021) by Lawrence K. Rolle, 5th year MD/MBA Scholar, Leader, and Ice Cold Brother of Alpha Phi Alpha Fraternity, Incorporated. Specifically, the Eta Pi Lambda Chapter seated in Pasadena, CA.

"First of All, Servants of All, We Shall Transcend All"

<https://www.gofundme.com/f/support-aysha-khoury>

*All quotes from Brother Dr. King unless otherwise stated.



Students Rally Behind Doctor Aysha Khoury After She Was Fired for Discussing Racism in Her Class



Lawrence K. Rolle
Keck School of Medicine of USC
USC Marshall School of Business
MD/MBA Candidate 2021

The Perspective



The seasons of a tree

We passed this tree in the spring,
it's green buds supplying hope when the playground was closed.

Tulips filled the garden beds.

We sat under this tree in the summer,
it's sturdy leaves providing shade in the scorching heat.
There, we watched an older gentleman fly a remote-control airplane.

The girls chased after it barefoot,
squealing in delight when it looped upside down,

We pondered when we would fly again.

The rose bushes were in bloom ahead.

We marveled at this tree in the autumn,
it's deep golden oranges contrasting a blue sky,
reminding us that change always comes.

Acorns crunched under our feet.

Now, we walk by this tree in winter,
it's stark branches strikingly naked without a coat of leaves.

Bare yet bold.

Still, it radiates strength

like a burning lighthouse, steadfast and true.

The evergreen behind us is shining with bright Christmas lights.

We drive home with the heat on, dreaming of spring.



Molly A. Uhlenhake, DO
Assistant Professor of Internal Medicine and Pediatrics
The University of Missouri Kansas City School of Medicine
Truman Medical Center



Cards Would Never Sign Off On You

My first patient on my ICU rotation was only four days younger than me. The only difference was he was sedated with a tube down his throat, and I was writing the numbers from his ventilator down on a piece of paper.

As I learned more about his case, I learned that was far from the only difference between us. He was the child of undocumented immigrants from Mexico. I was the white male child of a physician and three generations of college graduates.

He was alone in the hospital as he decompensated and ultimately passed away. I was at home interviewing for a residency program on my laptop.

Two days prior, I was presenting his latest lab values and various inputs from consulting teams. I reported that cardiology had "completed their work-up and would respectfully be signing off."

My attending looked at me and asked if I was joking. When I confirmed it was indeed true, he stated: "If that were you dying in that room, cards would never sign off on you."

Cards would never sign off on me.

There would've been experimental therapies, biopsies, and countless more hours spent dedicated to researching the unknowns. Perhaps the most important thing we give in medicine is time. Time to listen, to reflect, to live. And there is no doubt I would've been given time.

We are challenged in medicine to treat all our patients as if they were our own loved ones. To do so takes immense emotional commitment and often the difficult cases chip away at our passion and empathy until we build tall walls to protect us from further moral injury.

There is an eternal balance between idealism and realism, and of course, good stewardship of limited resources, that prevent us from throwing the kitchen sink at all of our patients. But I do think that everyone is deserving of our time. We all deserve to be seen and heard, to have our suffering witnessed, to have our stories heard and told — to have those who care signed on until the end.

My attending was absolutely right that cardiology would never sign off on me. I believe that all of us deserve the same. In memory of my first ICU patient, I vow to always bear witness to my patients' suffering, to give them my time, and to never "sign off" — no matter who they are.

Harrison VanDolah
Creighton University School of Medicine (Phoenix campus)
MD Candidate 2021

The Perspective



Pick Two

2.
Two.
Pick two.
Yes, pick two.
You. And you.
Only you two.

Only you two can go see.
Mommy.
A guarantee.
You won't like what you see.

You'll see mommy on a vent.
Spent.
FiO₂ 100%.
But SaO₂ 80%.
Status post cardiac event.
Maximum machine and chemical support until the end.
The full extent.

The full extent of her disease.
That ravaged her pulmonaries.
Then coronaries.
A catheter to help her urinaries.
And the final ones to fail: the kidneys.

No visits from family.
Precautionarily.
To keep everyone else free.
Of this disease so beastly.

That is—except for final goodbyes.
Before she dies.
Each child cries.
Many Why-Oh-Why's

Why is two the maximum?
She has a husband, four daughters and a son!
How can we leave out even just one?
Not to mention a granddaughter or grandson.

So pick two.
Two children of my dying patient whose mommy they will never again see.
This is a disease we can't treat, only prevent.
Please—I beg—PLEASE!
Stay home, wear a mask, distance and get the vaccine.
And be wise.
Because I am totally done.

Elan Baskir, MD
Rutgers – New Jersey Medical School
Internal Medicine-Pediatrics, PGY1

Essay by Dr. Chir Wei Stephanie Yuen

This is a story about one of my patients who did not have Covid-19 pneumonia, but had the misfortune of spending much of his last days in a plague hospital. This is a story of a dying man, but not necessarily about hard decisions, not his anyway.

Mr. H was an older African American gentleman with an extensive past medical history of HCC, HTN, DVT/PE, ESRD, general debility who presented to the ED with a wonderfully non-specific complaint of altered mental status from a SAR. He was found to be in shock from MSSA PNA as well as hemo-peritoneum; to have so many new letters added after one's past medical history was as unlucky as it was common in the last days. On imaging, he was found to have a mass sitting in his IVC, whether thrombotic or metastatic, we did not know. For days, the ICU team would alter his anticoagulation, watch his temperature curve on antibiotics, as well as chase his HGB drops and his consultants who were wary of all the new letters after his name. Eventually, against expectations, he came off pressors, moved from the land of the unstable to the stable ill, otherwise known as the floors.

When I met Mr. H, my list had grown to almost all Covid-19 positive patients or PUIs as we impatiently waited for the state test results. But Mr. H had tested negative and his bacterial infection responded well to antibiotics. The lack of the dread virus, the yellow contact/droplet precaution sign on his door, meant I could stop by freely before and after rounds without the fear I would have to max out his O2 support (always a steady 2-4L nasal cannula) and order a STAT blood gas while waiting for an overworked ICU fellow to come assess. His AMS had resolved with speed, the fog lifting to reveal a tired, good-humored man in full control of his faculties. We bonded over our shared fondness of New York City and its myriad food options. Once I established a basic rapport and summarized the course of his multiple comorbidities in lay terms, I broached the question of code status and goals of care. To my surprise, he held to the hope that he would get his strength back, to be able to participate in chemotherapy for his HCC, despite what his oncologist had told him and what I was telling him at bedside. "Stubborn" he called himself over and over again, when I brought up the topic.

Looking at his tired form pausing inhale the extra O2 from his nasal cannula, I felt an impatient frustration, a fatigue of my own. I was familiar with the feeling from counseling folks with COPD about their tobacco habits, those who did not choose the "right choice," whatever else our high flown rhetoric about autonomy and "my body, my choice" might suggest. I could hear it in the edge of comments in my senior's voice, my attendings' resignation when I finished presenting him on rounds. The judgement was, as every medical humanities class taught against, "paternalistic" or perhaps fatalistic. We knew how this story would end, before I ever entered an order or wrote a note on him; "Time will have his fancy/To-morrow or today."

Of course, we consulted palliative care and set up a family meeting, a task complicated by the pandemic. His only daughter, Ms. K, was able to fly over from California and, with some finagling with security and infection control, she was allowed to come to bedside as a "compassionate" exception to our no-visitor rule. After I went over the same poor prognosis with her in the room, I watched Ms. K talk and talk through the decision with Mr. H, about what the coming months would look like if he chose to "keep fighting," as he put it; I could see Ms. K's professional background in counseling glimmer through the role of concerned adult child. Mr. H, after deliberation, decided against compressions, but insisted on intubation if his illness

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came to that and still fervently wanted to be able to walk again. He understood the odds, but decided on betting on his recovery all the same.

Outside the room, afterwards, Ms. K. filled in the contours of my patient's life before he became the stubborn, sick, hopeful man who greeted me every morning. I do not know if this was intended as explanation, but it dawned on me that this was not the first time he had pushed the expected. His father was one of the first Black judges in the Detroit area and his mother was a nurse at a time when expectations of women were home-bound. He came of age in revolutionary times and joined the Black Panthers (Ms. K had brought a sweatshirt with their symbol from the Oakland Museum to cheer her dad up). Eventually, he studied at Penn and moved to New York to become one of few black stockbrokers on Wall St.

I would not say that hearing my patient was such a fighter changed my frustration overnight, but it gave me a grudging respect. I had spent much of intern year in the habit of doing unto others (as you would have done unto yourself), learning medicine, the science and the system, to apply to patients, but as passive recipients. Major decisions about health would often be explained after the fact and, even when there was a choice to be made, the "right choice" usually sounded a great deal like the medical team's choice. Here was a guy who defied the path that those in power had written for him. I still did not think he could tussle with Stage 4 HCC and "win" meaningfully, but I respected and honored that spirit and struggle.

After so much talking over the weeks, Mr. H stabilized enough to be transfer to a subacute rehab of his choice. Upon chart stalking after sign out, months later, I noticed that he had come in altered again and died in emergency room. In the end, it was Mr. H.'s choice, made in the full light of medical inevitability and knowledge, and perhaps against it, that he decided on rehab rather than hospice. Whatever his team's explanations, his daughter's pleading, he decided to struggle as he had all his life prior, with the hard-won right towards self-determination or "stubbornness" as he called it.

Chir Wei Stephanie Yuen, MD
DMC/WSU
Internal Medicine-Pediatrics, PGY2

The Perspective



Poems By:

Colleen O'Neil, MD
Internal Medicine-Pediatrics PGY-1
Baylor College of Medicine

Cure

Colleen O'Neil

Time.
Clicks.
Forward.

Tredging
into a
speculative unknown.

We wait, anticipating
everything and nothing
all at once.

Do we wait
for life
for death
for joy
for tragedy?
Only God knows.

We float overwhelmed
by the broken dam of
fleeting comforts.

The truth we
beat back
in our riches
swells up,
to sink us
into her grievous
billows.

In the quiet,
with lights off,
laptops closed,
cities still,
dark humor hushed,
spats left in light,
racing hearts slowed
to a rhythmic still,
the questions kept at bay
lurch forward in the night:
Am I eternal enough to withstand?
Have I been human enough to fall?
Is there sense in this beginning?
Have we lived enough to end?

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Until,
a distantly familiar
voice whispers
on the wind.
I croon my neck to see her,
face severe and dimmed.
Upon approach,
she lifts my head,
sweetly shushing
fears unsaid.

I thought I knew her once before,
when her face shown in the day,
invincible and splendid,
the mirage of my majesty.

But here, in the dark,
I am faded and her face remains obscured.
The kindly grip of her ancient ugly wrinkles
so immutably sure
serve swiftly now to steady my ever fainting heart.

Untainted by
arrogance or
shuttered-up dismay,
the eternal light is in her
as she waits the long day
to at once be holy extinguished
in the most staying, righteous blaze.

And until her snuffing glory,
I'll call her in desperate night once more.
And when I grow strong and brave,
I'll greet her even at dawn's door.

Her name, I think, is Hope.

Rodger that:

to Match in 2020

Colleen O'Neil

I sink harshly into
the furrows of my couch,
pushed down deeper
by the weight of unfounded doubt,
watching out my window
for every faint and far-off flair;
windows cracked gently
to sniff gun powder on the air.

They say my greatest value
is to sit inside my house,
watching the clock,
folding into this couch.
I'm scrawny, inexperienced,
a liability in the fight,

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but I finished out basic;
to fight now seems a right.

I know my call is coming;
I almost hear it at my door.
So, I urge myself to sit
and wait now some more.
With the news hour comes
each newest death toll.
Soldiers wounded in battle;
Civilians losing soul.

And yet our silent troop
watches from afar,
guns atop our laps,
door cracked ajar.
Lazy helmet contrasts
this plush, formal house,
uniform top billowing,
as a ragged camo blouse.

But our hearts still sure and steady
for this day, our marching orders.
Our eager green platoon
prepared to join our brothers.

Friday we will hear
and soon too will fight.
Our great honor to join the battle
to which we've pledged our lives.

26

Colleen O'Neil, MD

Some more than others
Have their days outnumbered

By parents, by nurses, by sitters, by friends
By passions unexplored, by hopes undreamt

Each clock stroke reminiscent of a time now gone
Spent in endless minutes waiting in that bed
Of nights sleepless waiting for dawn
Of awkward shuffles, truths left unsaid

I wish I had come over. I wish I had stayed. I wish I had listened and patiently played. I wish I had studied your whimsical moves. I wish I had held words that could soothe the holes left in your parents hearts, hopelessly anticipating their lives' restart.

I wish, if only, I could have made you better.

But only God plays this role best,
lying us each down in His time to rest.
His wisdom is perfect and his timing true.
He alone gives me peace as I mourn you,
both of us 26.



Reminders of Humanity: A Case I Wasn't Expecting

It's a Tuesday afternoon, and I'm working in the pediatric dermatology clinic. Amidst the bustle of clinic, we have a few moments for teaching. Dr. P, my dermatology attending, reviews a "Jeopardy"-style presentation with me. The first category is "Silvery Hair Disorders" and the second is "Hypopigmentation." As we answer questions about white forelocks and light patches of skin, I can't help but remember when I was 13 years old, waiting anxiously in a dermatology clinic with a small white patch on my neck. At that time, I didn't know what a differential diagnosis was, much less the names of diagnoses that one might find in a didactic presentation on dermatology, such as Waardenburg syndrome or pityriasis alba. I was self-conscious about this white mark on my skin that remained unchanged even in the summer when the rest of my skin became tan. The dermatologist gave me a steroid cream, and later topical tacrolimus, but the patch persisted. Around the same time, I started growing white hair at one spot on my head. I thought that it must have been from the stress of moving to a new middle school, or maybe just a genetic predisposition. Over the years, the white patch on my neck remained but faded significantly, and I learned that parting my hair a certain way would cover up the white hair. I never found out what caused these symptoms. I assumed that sometimes things just happen, and we can't always explain them.

Now, 17 years later as a resident physician, I ask Dr. P about my symptoms out of curiosity. She says I could have had a halo nevus on my head, which is a melanocytic nevus that results in a halo of depigmentation, leading to a spot of white hair. She can barely see the white patch on the left side of my neck but agrees that it could be pityriasis alba—my leading differential diagnosis when I learned about this condition in medical school. Ironically, our next clinic patient is a baby with patchy hypopigmentation, referred to dermatology with a concern for vitiligo. We turn off the lights and turn on the Wood's lamp, a source of long-wave ultraviolet light that appears fluorescent in the presence of depigmented skin. The baby's skin appears faint white under the light, suggesting pityriasis alba and post-inflammatory change from eczema. We provide reassurance, encourage moisturizing creams, and step out of the room. The next patient has not yet arrived, so I ask Dr. P if we can look at the white patch on my neck with the Wood's lamp. We step into an empty patient room, and Dr. P shines the lamp onto my neck. "Interesting," she mumbles. My eyes widen—no one wants their doctor to find something interesting during a physical examination. She explains that the patch looks bright white—fluorescent, consistent with the depigmentation of vitiligo, but notes that I also have evidence of re-pigmentation. She snaps a picture for me to see (Photo 1).

Dr. P explains that I likely have something called segmental vitiligo: limited patches of depigmentation on only one side of the body. She reassures me that I do not need to undergo testing for autoimmune diseases (in contrast to nonsegmental vitiligo), but all I can keep thinking is one thing: *I can't believe I have vitiligo, I can't believe I have vitiligo*. After clinic, I race home to research articles on my diagnosis. I learn that segmental vitiligo is found in only 0.5-1% of the population and is characterized by its early onset, rapid stabilization, and unilateral distribution.¹ I learn that leukotrichia (white hair) is almost always present in segmental vitiligo.¹ Some articles hypothesize that segmental vitiligo could have an autoimmune component or might be a manifestation of genetic mosaicism.² Treatment includes topical steroids, topical immunomodulators, and targeted ultraviolet phototherapy, although segmental vitiligo is typically less responsive than nonsegmental vitiligo.² I think about all the pieces of my history: my white hair and white patch of skin, their localization to the left side of my body, their appearance when I was young, and the fact that they failed topical treatments but stopped growing after a year or so. I wonder if the dermatologist's tacrolimus prescription meant vitiligo was on their differential. Yes, the pieces fit: I have segmental vitiligo.

As I am sitting at home with the weight of a diagnosis, I am reminded of my own humanity as a patient. Physician or not, we all have human bodies, and these human bodies carry diagnoses, regardless of our awareness of them. I feel both alarmed and relieved to have a diagnosis. The diagnosis changed the

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trajectory of my day, causing me to hurry home to learn more about the disease. It explains symptoms I had not worried about in years. I am not a different person than I was before I found out about my segmental vitiligo, but the mere declaration of a diagnosis makes me view myself in a slightly different light. In one moment, I am interested in learning about my diagnosis as a physician, but also concerned about my prognosis as a patient. On one hand, I'm thankful to have the medical knowledge as a physician; it is helpful to know what questions to ask and where to find answers. On the other hand, my clinical knowledge as a physician compromises my role as a patient – I'm acutely aware of what can go wrong. Despite the general reassurance I find in the literature, I can't help worrying about the potential association with other autoimmune diseases or my future children's risk of inheritance. In contrast, being a patient helps me reflect on my role as a physician. It calls to mind the countless times I have told patients their diagnoses without pausing to think about how it might color the rest of their day, let alone the rest of their lives. Learning that I have segmental vitiligo introduces me to a new disease pathology, but more importantly it gently reminds me of my own humanity and the importance of extending that lens to my patients.

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Photo of Wood's Lamp lighting on the white patch on my neck:

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The Perspective



Poems By:

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COVID Nights

I will long remember the nights of unremitting beeps from pulse ox machines
The dismal desaturations that compel us to further intervene
Appearing alien-like in our personal protective equipment
We squeeze our patient's hands to comfort, while family members are kept distant
A call overhead for intubation with a scramble for one last facetime connection
Silent prayers in families' eyes and loving last words, no time for meaningful reflection
Beep-beep-beep, and I rush outside the room to the sound of another desaturation

An Outing At Last

"Why are we here?" is my grandmother's question
"For an outing at last," I reply, hiding a smile
"Why are we here?" with a puzzled expression
Dementia has an upside I muse, ignorance is bliss, meanwhile
A worried world wrapped in misery prays for a cure
Surging death counts make the holidays hard to endure
Burning midnight oil, scientists carry the hopes of a nation
Masks, distancing, and avoiding temptation
Hope via vaccines is here before Easter, "Now your turn" I whisper
"Which arm?" asks the nurse, "I'm Vaccinated" says her sticker
"Why are we here?" again comes the question
"For an outing at last," I smile with affection



I don't understand, he can die from not getting the ICD

As a typical sign-out proceeded, my senior resident physician went over the patient list with me, the on-call staff overnight. Then, we discussed a 25-year-old man whom I admitted the night prior. In brief, he presented to the hospital with three days of cough, fatigue and one episode of syncope. Evaluation revealed COVID-19 pneumonia and an EKG strongly suggestive of Brugada syndrome. Cardiology was promptly consulted.

"I do not understand why he does not want the ICD. He is a young man with a wife and a toddler at home. He can die from Brugada. I really do not understand." The senior resident claimed

The frustration was palpable. On one hand, the senior resident was going through a brutally long stretch of work. On the other hand, the notion of this patient turning down a life-saving intervention perplexed her. By all accounts, she was and is amongst the most compassionate physicians I have ever worked with. I have looked up to her in more ways than she knew. Yet, I was not entirely surprised at her sentiment.

"I do not think that his refusal has much to do with us, but more so that him and his family do not trust me, you or any of us." I replied

She gave me a look of disagreement, confusion and sadness. Then, we carried on with our sign-out.

As a pre-medical student, I came across a book titled "The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures." Focusing on a family of recent Hmong immigrants with a daughter suffering from epilepsy, the book detailed the treatment course of the daughter, an immensely complicated journey full of misunderstanding, tragedies and culture clash. The patient of this case is, indeed, a Hmong man. On the night of his admission, the patient asked me to call his father to discuss his medical situation. Living together with his parents, wife and one child, it was transparent that the patient came from a tight-knit family. His father asked if the patient could seek a second opinion somewhere else for the COVID-19 diagnosis and whether his heart problem was real.

Although many definitions exist, medical mistrust can be generally understood as a lack of trust in the motives of individuals and organizations or medicine in this context.

However, such mistrust can be a challenging idea to accept for many physicians who are compassionate and want nothing but the best for their patients, like my senior resident.

The topic of the Hmong community and the US health system is multi-layered. As an immigrant myself, I have a firsthand view of medical mistrust. The perception continues to permeate throughout my family on a regular basis, especially during the COVID-19 pandemic. Yet, my own experience with medical mistrust does not appear to be of much help in this case. My second phone call with the patient and his father regarding the importance of the ICD was met with gratitude, but it was a lukewarm reception. At the time of writing this essay, the patient was recovering from his COVID-19 pneumonia with no plans of pursuing the ICD or other cardiac interventions.

Sensitivity to other cultures and their traditional value system is critical in health care. I was taught this concept and understand it well. However, applying this practice to real life scenarios is not an intuitive process. Neither my reading of the book, my personal friendship with people from the Hmong community, nor my upbringing as an immigrant resulted in the patient getting the ICD. But maybe that is not the outcome that I should aim for. An ICD is the correct answer for the standard medicine in which I am a daily practicing physician. However, continuing to stress the importance of an ICD may not be the solution on this case, or worse, further widen the chasm of mistrust. The search for a common ground, whatever that may be, between us is perhaps more important. And that search begins with the most important element of all, compassion.

Acknowledgement: Marie Arnaout, DO. Nicholas George, MD. Nicholas Helmstetter, MD.

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Positive

“Shut up” I say to my smart device as the alarm goes off. It’s the evening and I am facing another night shift at the hospital. It doesn’t respond to that, so I groan and politely say “Please stop” and the chirping halts. I feel particularly tired and chalk it up to working two weeks of long shifts.

My phone buzzes: a text from my friend Liv. “Any best finger to put the pulse ox on? Todd seems to be 91-92.” Her husband was diagnosed with Covid about a week ago. She’s one of the most even-tempered people I know, but had asked if there was anything they could do at home to monitor symptoms. I suggested she buy a pulse oximeter and check it periodically.

“Any finger is fine. The pointer is usually easier. Have him take some deep breaths and see if it comes up.” I begin to pack for the night shift. Go to the kitchen and get food together. Start making coffee. Come back in a few minutes to her text: “He can’t take a deep breath.” I reread it. She must have mistyped. As I’m staring at the sentence she sends more.

“His O2 is 90. His heart rate is 130. He can’t take a deep breath.”

I’ve known Liv for twenty-five years. We grew up across the street from each other in New York. We played on the same soccer team and our moms would trade off pick-ups and drop offs from practice. Our families vacationed together every summer. Had even been suckered into buying timeshares together. We spent weekends driving to Jersey for soccer tournaments, nights sneaking beers to the playground of the nearby school, days after school listening to the local boys’ punk band in their basement. My mom tutored her sister for her nursing licensing exam. I went to prom with her brother at his Connecticut prep school where I smoked weed for the first time. Her dad, a man who didn’t graduate high school and joined the military when he was seventeen, had beamed at me when I came back to the neighborhood with a medical degree. In his thick Brooklyn accent: “I never thought I’d know a doctor.”

I pick up the phone to call her and pronounce our usual greeting in my calmest voice: “Hey girl”.

She’s crying. “I’m so scared. I don’t know what to do. His breathing seems labored.”

I’m on speaker now and talking to Todd. “Take your first two fingers and place them under your jaw until you feel a bounding pulse. Set a timer on your phone for 30 seconds and count your pulse.” What feels like an hour goes by. Liv says “What is it Todd?”, and he answers “66.”

“Ok so multiplied by 2 is 132, so the pulse oximeter seems accurate. I think you should go to the emergency department. Hopefully they’ll just get some labs and an X-ray or CT scan, prescribe you steroids and send you home.” I try to sound reassuring. But I also tell him to pack a bag with extra clothes and his charger, because I know there’s no chance he’s coming back home tonight.

I send a message to my mom. Our moms are still best friends, and I want to warn her of the anxious texts she’ll inevitably be getting shortly. She responds “Oh that’s not a good sign. And the typical course. Need to rule out PE vs ARDS/COVID pneumonia.”

She’s been a medical ICU nurse in the Bronx my entire life, which means two things: she’s probably the smartest person I know, and she’s seen some things I can’t even imagine. When Covid hit the city, it hit her hospital hard, and she started working sixteen hour shifts for weeks in a row. Her employer even put her up in a hotel near the hospital just so she’d be able to stay later at work but still get some sleep.

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One day the nurse manager approached her and said “I don’t know how this is my responsibility, but I need your help.” He led her to a room with the air conditioner blasting, filled with about two dozen dead patients. They had long run out of room in the morgue, recently ran out of space in the cooler trucks outside, and now were out of toe tags for the bodies. So my mom wrote their names in permanent marker on their feet, and went back to the unit and finished her shift.

I go to work, tired, but can’t stomach coffee for some reason. It’s a quiet night so after “tuck-in rounds” with the charge nurse I head to the call room to lay down. My muscles feel heavy. I’m exhausted but can’t sleep and blame it on my flipped schedule. I lay on the uncomfortable call room bed and reminisce about intern year, when I had a thirty-six hour stretch off between a day and night shift. I flew to South Carolina, where Liv and Todd had moved, and missed the rehearsal dinner but got ready with her the morning of their wedding. The next day I went from the airport straight back to the hospital to work.

The rest of the night is a blur of answering pages, distraught texts from Liv, phone calls from nurses, wondering why my throat feels scratchy and realizing I forgot to take my allergy medication, updates of Todd’s vital signs and lab results, taking ibuprofen for a headache that must be caffeine withdrawal, but no sleep. The sun rises and on the drive home my throat feels raw, and I start coughing. I tell myself I’m being dramatic, but by the time I’m at the door I have chills in my spine and make an appointment for a Covid test.

I call in backup coverage for my last night shift and feel guilty and like a fool. It can’t be Covid. All I’ve been doing is working, and I’ve followed the PPE protocols. I’ve worn a mask so much my face is littered with maskne. While I wait for my test results, I convince myself the symptoms are just allergies combined with working nights for a few weeks.

I toss and turn the rest of the day. Todd is on four liters of low flow nasal cannula, his oxygen saturation hovering in the low nineties. He started dexamethasone last night. The hospital is full, so he’s admitted but won’t leave the ED for a while. Liv wants to bring him a pillow to make him more comfortable but has their eight month old son to take care of and wouldn’t be able to see him anyway. They’re probably going to start remdesivir tomorrow.

At two in the morning I wake up clammy. I check my phone and see a new email: “You have results in MyChart.” My face goes numb. I try to log in but my shaking fingers can’t correctly type the password. I get it right on the fifth attempt and read the results, my heart pounding and then a pause: positive.

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Evolution of a Medical Student

Arms fumble into immaculately ironed sleeves.
Shoulders teeter a hallowed accessory.

Look at you! I'm so proud of you!

My first patient lies dormant on a bed of metal,
her only solace: my education.
Scalpel touches the skin. With trembling hold and a quick
stroke,

*Maybe you don't have to tell me everything
about your day...*

Hands scribble across blank slates,
hieroglyphs to the untrained eye.
Each word a purposeful repetition
hoping to recall the details of every system.

Don't you think it's already getting late?

Rhythmic cracks echo beneath my outstretched arms.
The conductor frantically waves about to
an orchestra that refuses to respond until
she too succumbs.
I sit with my radio on and weep.

*We were supposed to go
together.
Don't you care?*

"Tell me a little bit about yourself"

Look at you! How can we do this anymore?

Wrinkled sleeves envelope the arms.
Plastic tube snugly rests atop my shoulders.

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The "Journey" of Residency

Looking back, residency has not followed a linear path from start to finish. There have been highs that make you feel like you can accomplish anything. Similarly, there have been the lows that bring everything crashing back down. And during this, my fourth and final year, I've caught myself reflecting on this journey more and more often.

These days, a lot of the early moments are coming back to mind. I remember my first days as an intern, nervous and wondering if I was keeping up with everyone else. I remember those floor and ICU rotations and the uneasiness I felt as they approached. I remember fielding pages and wondering if I was giving the correct answers. I remember those clinic patients, where it almost felt like moving mountains for them to do the slightest thing to better their health. I remember my first switch between Pediatrics to Medicine and feeling like I was on a different planet. And, I remember stepping into the role of a senior and wondering if I was ready.

A much wiser resident once told me that in residency, you have to "be comfortable being uncomfortable." While seemingly straightforward, that statement resonated with me and still does. It gave me the room to grow, to try different things, to have both success and sometimes failure. Truthfully, it took the pressure off (or at least lessened it) and allowed me to appreciate these fleeting moments of residency even more. Now, all those seemingly tough rotations, patient encounters and decisions became a lot easier.

As cliché as it is, time certainly has flown by these last four years. The ebb and flow of residency has thrown its fair share of curveballs - even more so in the last year with COVID. But, I'll never forget this experience and the lessons learned. And, as I enter this new unknown of life beyond residency, I remind myself, "be comfortable being uncomfortable."

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Cases

A Case of Neonatal Alpha-1 Antitrypsin Deficiency

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Introduction

Alpha-1 antitrypsin deficiency is an inherited disorder, affecting about 1 in 3500 individuals, characterized by low levels of alpha-1 antitrypsin due to a mutation in the AAT gene. It is most commonly diagnosed in adults, who can develop significant lung and liver disease; however, it is also an important cause of liver disease in children, and the most common inherited reason for pediatric liver transplantation.

Case Description

A 4-day-old ex-full-term girl presented to the hospital for 1 day of poor feeding, lethargy, and worsening jaundice. Pregnancy and delivery were uncomplicated. She was discharged from the newborn nursery on day of life 2, at which time she had mild jaundice with a total bilirubin (TB) of 10.2 mg/dL and a direct bilirubin (DB) of 1.4 mg/dL. On day of life 4, jaundice had extended down her chest, and repeat TB and DB were 13.4 and 2.4, respectively. Conjugated hyperbilirubinemia led to an urgent GI referral; however, increasing somnolence and decreased oral intake led the family to take her to the emergency department (ED). During this time she also had decreased urine output and yellow emesis, but was stooling normally.

On exam, her vital signs were within normal limits for age and she had jaundice to her thighs. Initial workup in the ED was notable for TB 12.7, DB 2.4, AST 73 IU/L, ALT 20 IU/L, albumin 3.1 g/dL, alkaline phosphatase 185 IU/L, and GGT 925 IU/L (reference range <178); remaining workup was unremarkable, including basic metabolic testing and infectious studies. Abdominal ultrasound was normal, showing no evidence of biliary atresia. Concern for Alagille syndrome led to checking an echocardiogram and spinal radiograph, both of which were normal. Serum alpha-1 antitrypsin (AAT) level was undetectable (<25 mg/dL; reference range 100-300), suggesting a diagnosis of alpha-1 antitrypsin deficiency (AATD).

Her oral intake improved over the course of her admission, and she was discharged home on hospital day 3 with outpatient GI follow-up. Outpatient cholescintigraphy was normal, effectively ruling out biliary atresia, and confirmatory testing for AATD revealed the PiZZ genotype. GGT and bilirubin levels decreased gradually over the following weeks.

Discussion

AATD is an important cause of neonatal cholestasis, which presents as jaundice with conjugated hyperbilirubinemia and elevated GGT. In more severe cases, neonatal cholestasis can present with acholic stools, hepatomegaly, low albumin, or elevated INR.¹ Of note, neonatal cholestasis can be caused by a variety of etiologies (see Table 1).

Biliary atresia accounts for 40-50% of causes of neonatal cholestasis.² It requires urgent surgical intervention, and outcomes are better if surgery is performed prior to 30 days of age.² It is important to note that a normal abdominal ultrasound does not definitively rule out biliary atresia. Evaluation typically proceeds with cholescintigraphy, which assesses patency of the extrahepatic biliary tree. Patients with suspected biliary atresia should then undergo liver biopsy and intraoperative cholangiogram for definitive diagnosis.

Our patient had an undetectable AAT level, highly suggestive of AATD, which requires genetic testing for confirmation. AAT levels can also be low in low protein states such as severe malnutrition or protein-losing disorders.

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On the other hand, AAT can be falsely normal in individuals with AATD, owing to the role of AAT as an acute phase reactant.⁴ There are several alleles associated with the AAT gene (SERPINA1); the Z allele produces the least amount of functional AAT. Thus, a homozygous PiZZ genotype, which was found in our patient, tends to be the most severe and most likely to produce cholestasis in the neonatal period.

AATD can present at any age, from birth to late adulthood, but there is a relative paucity of literature on AATD presenting in neonates. Indeed, the average age of diagnosis for AATD is 45 years or older,⁵ though it has been suggested that fewer than 10% of individuals with AATD are properly diagnosed, and many individuals have had symptoms for years prior to diagnosis.⁴ Nevertheless, it is crucial to recognize AATD as a possible cause of neonatal cholestasis as these patients are at risk for liver disease at any age. In fact, AATD is the most common inherited indication for liver transplantation in children.¹ As such, early involvement with GI is crucial for children with AATD. While there is no specific treatment, early intervention focuses on avoiding concomitant liver damage by ensuring vaccination against hepatitis A and B, maintenance of a healthy diet to lower the risk of fatty liver disease, and avoidance of alcohol.¹

Lung disease, specifically emphysema, is a common manifestation of AATD but does not typically occur in childhood.¹ All patients should minimize lung injury by avoiding tobacco use, secondhand smoke exposure, and air pollution. Early referral to pulmonology may help mitigate progression of lung disease. Of note, AATD is also associated with cardiovascular disease, diabetes, chronic kidney disease, and osteopenia, although the mechanisms for these associations are unclear.⁵

Last, our patient's early diagnosis calls attention to the question of including AATD in routine newborn screening. A 2014 review recommended pilot studies to examine its inclusion but acknowledged potential barriers including the lack of treatment for AATD and the fact that a large number of individuals with AATD will remain asymptomatic until adulthood.⁷ Interestingly, a Swedish trial suggested that screening is cost-effective, and that knowledge of an AATD diagnosis improves psychological outcomes as well as adherence to smoking cessation, ultimately resulting in improved disease outcomes.^{6,8} Similarly, a survey of young adults with AATD diagnosed as neonates found that all participants advocated for newborn screening of AATD, citing a better appreciation for the risks of smoking as a benefit of early diagnosis.⁹

Conclusion

Here we present a neonate with AATD, an underdiagnosed metabolic disorder that is most often found in adults. This case highlights the importance of recognizing worsening jaundice and conjugated hyperbilirubinemia, and initiating an immediate workup. Patients found to have AATD are at risk of developing significant liver disease at a young age and should be referred to GI as soon as a diagnosis is made.

Take Home Points

1. Elevated conjugated bilirubin is never normal in neonates and warrants investigation; specifically, biliary atresia must not be missed.
2. Low serum AAT should prompt genetic testing to confirm the diagnosis of AATD and characterize its subtype.
3. AATD is uncommonly diagnosed in neonates, but requires ongoing specialist follow-up given their risks of liver and lung disease.



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Table 1: Causes of Neonatal Cholestasis

Infectious (acquired)	Sepsis UTI
Infectious (congenital)	CMV HIV Rubella Syphilis Toxoplasmosis HSV
Structural	Biliary atresia Choledochal cyst Inspissated bile syndrome Alagille syndrome Progressive familial intrahepatic cholestasis
Endocrine	Hypothyroidism Hypopituitarism
Metabolic	AATD Cystic fibrosis Galactosemia Tyrosinemia Inborn errors of metabolism Bile acid synthesis defects
Systemic	Shock Heart Failure



Utility of Parathyroid 4-Dimensional Computed Tomography in Management of Primary Hyperparathyroidism in an Adolescent Male

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Introduction

Primary hyperparathyroidism (PHPT) is uncommon in children and usually associated with either single or multiple parathyroid adenomas (so-called parathyroid hyperplasia). Preoperative planning includes imaging studies, such as a sestamibi scan, ultrasound, or MRI, to localize the adenoma and direct parathyroid surgery. In patients with nonlocalizing studies, 4D computed tomography (CT) has recently been shown to be useful in detecting these lesions, with a higher sensitivity and specificity. There is limited data about its use in the pediatric population. We present a case of an adolescent male with PHPT, who had a non-localizing ultrasound and sestamibi scan; however, 4D CT was useful in localizing parathyroid disease and directing surgical exploration.

Case Description

A 16-year-old male with Asperger's syndrome presented with fatigue, generalized weakness, headache, and constipation. Laboratory work up was consistent with the diagnosis of PHPT including elevated serum total calcium of 11.5 mg/dL, ionized calcium of 6.09 mg/dL, and PTH of 216 pg/mL. He had significant vitamin D deficiency and calciuria was present. Renal function, renal ultrasound, and albumin level were normal. Lab studies 1 year prior to presentation were done for similar symptoms and showed PTH level of 69 pg/ml, hypercalcemia, calciuria, and vitamin D deficiency. He had an unremarkable neck ultrasound at that time. He was subsequently lost to follow-up.

During this admission, he was started on intravenous fluids, along with vitamin D supplementation. Bone scan was normal. Multiple endocrine neoplasia syndrome was not suggested by family history, physical exam, or laboratory investigations. Neck ultrasound was negative, followed by an unremarkable scan. A 4D CT scan was obtained, demonstrating right inferior parathyroid lesion. He underwent surgical parathyroid exploration after increasing 25-hydroxy vitamin D level above 20 ng/ml. With intraoperative PTH monitoring, both right superior and inferior parathyroid glands were resected. Post-operatively, patient's calcium and PTH levels normalized. Surgical pathology confirmed hypercellular parathyroid tissue.

Discussion

While imaging has no utility in confirming or excluding PHPT, it can help localize adenomas and guide operative planning. 4D CT scan is more sensitive (range) % than either US (range) % and sestamibi scan (range) %. Both US and sestamibi scan failed to detect a lesion in our case, while 4D CT was useful in localizing the adenoma to the right inferior parathyroid gland, thereby preventing bilateral parathyroid exploration.

Conclusion

4D CT can be useful in detecting parathyroid lesions in pediatric patients with PHPT who had initial nonlocalizing ultrasound and sestamibi scan, decreasing the morbidity of surgical exploration. When available, we may be able to avoid unnecessary testing, minimize length of stay, and avoid excess costs.



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NMPRA Notes



New Initiative! Calling all interested residents, medical students, alumni and faculty!



NMPRA is developing a subcommittee for Diversity, Equity, and Inclusion. The purpose of this subcommittee is to develop a pipeline program for under-represented minorities specifically in the field of Med-Peds. We aim to foster a community and safe space for those who identify as underrepresented in medicine (UiM) within our national Med-Peds network. Through this committee we hope to provide a protected space for discussions of justice, diversity, equity, inclusion, and representation. We will aim to promote visibility of UiM faculty and residents, strengthen mentorship across generations, and facilitate recruitment and retention of those who are UiM with the goal of creating a more diverse Med-Peds specialty across the nation.

If interested in participating for the 2021-2022 academic year please email our NMPRA Traditional Secretary Adrianna Stanley at secretary@medpeds.org or anstanley@mednet.ucla.edu!



CONGRATULATIONS
TO ALL FOURTH YEAR
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MATCHING THIS MONTH!!

**WELCOME TO THE #MP4L
FAMILY!**

The Perspective



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