

Medical Student Newsletter

Summer 2020

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Welcome to our first ACP Newsletter!

Lead Editors: Olivia Wong, AZCOM Class of 2021 & Kathryn Herrera Theut, UACOM-T Class of 2021



We are the current co-chairs of the Arizona ACP Medical Student Committee. We were inspired to start a medical student newsletter in order to foster our enriching community of medical students in Arizona who share similar interests. Now more than ever, it is important that we cultivate connections between our members and provide a voice for medical students. We hope this first edition will create a community that is engaging and an invaluable complement to our education as medical students. We will strive to highlight the successes of our student members and alert you to opportunities and resources through ACP and beyond. It was a great honor to serve as co-chairs this year to help advocate and create collaborative opportunities between the medical schools across the state. Thank you to the medical students and mentors with special thanks to Dr. Radhakrishnan, Debbie Webber, and Dr. Allan Markus who helped us get this newsletter started. During these unprecedented times, please know you have a community that cares and is here for you.

A word from our Arizona ACP Governor:

Dear Medical Student members,

I am thrilled that our medical student committee chairs: Medical students Wong and Herrera-Theut have embarked upon a grand journey of inquiry for the Arizona chapter, by launching the medical student newsletter.

The goal of the newsletter is to provide a forum to exchange ideas, learning and develop a spirit of inquiry. This will provide you a platform to augment your scholarship portfolio.

I thank the founding chairs and the contributing authors. I hope that all of the student members will consider submitting case reports, evidence-based summaries or thought articles on being a medical student.

Priya Radhakrishnan, MD, FACP

Broaden your differential: Chest Pain

by: Ashley R. Wang, AZCOM Class of 2021



Test yourself by reviewing this patient presentation, assembling broad differential diagnoses, then checking it against our differential at the end of the newsletter!

A 77-year-old female presents with a two-hour history of sharp chest pain that radiates to the middle of her back, exacerbated by any change of position. Associated symptoms included shortness of breath, cough, and bilateral leg swelling. She denies fever, sputum production, diaphoresis, nausea, or vomiting.

What is included in your differential diagnoses?

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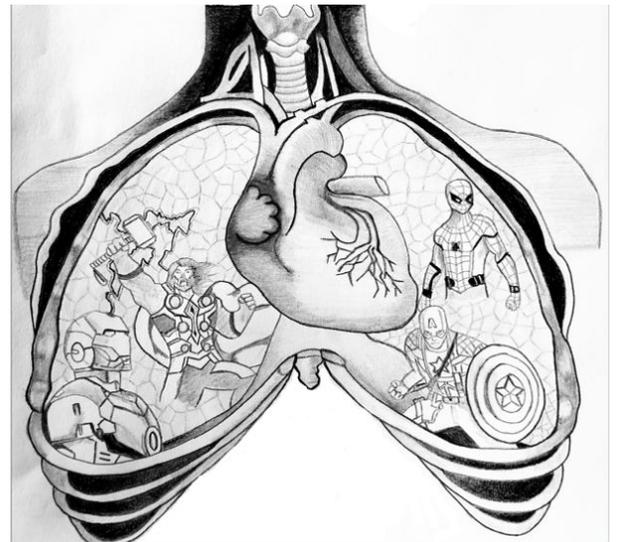
Cases that speak to us:

A Special Relationship

By: Briana Doghone, UACOM-T Class of 2021



I had the opportunity to participate in the care of Mr. M, a patient with ALS admitted for hypoxic respiratory failure and possible tracheostomy placement. Every morning, Mr. M delayed having the procedure. Every morning, he was exhausted and dyspneic. Every morning, he struggled to answer our questions. Our conversations with the patient lasted about 5 minutes. After a few days of this routine, I would return in the afternoons to see if Mr. M had decided on the tracheostomy. One day, he noticed my ID holder was the Captain America shield. He quickly enlivened and we talked about the Marvel characters, movies, and comic books. 40 minutes later, I left the room.



I spent more time with Mr. M, learning about his life and how ALS permanently changed it. He recounted stories of fishing and hunting, but he enjoyed talking most about Marvel comics. I found it interesting that he used his breaths to talk about superheroes rather than the next steps in his care. When I alluded to this, he said, "If I talk about getting a tracheostomy, I feel like I am taking an active step towards death". In being so focused on the life-prolonging and morbidity-preventing benefits of a tracheostomy, I didn't think about how significant this decision was for the patient. I lost sight of what this escalation of care meant, that the patient's disease was progressing when he wasn't ready.

It might seem unproductive for a patient to waste his numbered breaths talking about comics. But maybe for that time, even just for 40 minutes, maybe that invigorated more life into the patient than any added tubing could do. It was important to meet Mr. M where he lived, rather than simply trying to get him to efficiently take the next step. As physicians, we are privileged to be included in moments where patients articulate their stories, tell us truths about our humanity, and the inevitable limitations in the face of disease. Maybe those interpersonal aspects of the patient-physician relationship cannot be so easily overlooked because at the center of effective care, there is the connection of patient and provider. Through my interaction with Mr. M, I was reminded of the importance of treating the patient with the disease, rather than the disease the patient has.



An Unusual Overdose

By: Priyanka Atit, AZCOM Class of 2021



A 27 year-old-female with a history of anxiety presented to the emergency department after being found unconscious at home. On arrival, she was unresponsive. Her EKG showed a wide complex tachycardia with a prolonged QT interval. UDS was negative. She was intubated and admitted to the MICU for further evaluation. During her hospital stay, the patient went into cardiac arrest with return of spontaneous circulation after CPR.

When the patient regained consciousness, she denied taking any prescription or recreational drugs. She also denied a history of depression or suicidal ideations. However, on further discussion, she reported she had been taking 200 tablets of Loperamide daily for the past two weeks. I was shocked when she said this and reconfirmed that it was individual tablets, and not milligrams she was referring to. When I asked why she was taking so much Loperamide, I was surprised by her answer. She experienced withdrawal symptoms after discontinuing pain medications for a knee surgery a couple years ago. She looked up how to curb opioid withdrawal symptoms on the internet and came across a cheap, easy to access suggestion: Loperamide. She started taking 48 pills daily, and eventually increased to 200 pills daily. Surprisingly, she was largely asymptomatic while taking Loperamide, and even denied constipation. In large quantities, Loperamide is associated with cardiovascular toxicity and can lead to life-threatening arrhythmias.

The patient recovered well without any further arrhythmic events during the rest of her hospital stay. This was a challenging case as the patient was a young, healthy individual who resorted to desperate measures to manage an opioid dependence after a relatively short period of taking opioid pain medications. In medical school, we learn about the widespread nature of the opioid crisis and how to minimize the risk of dependence and addiction. However, we usually hear about this in the context of a patient who took recreational opioid drugs, or prescription medications for a length of time. I had never heard of Loperamide being used in large quantities to achieve a "high" similar to opioids. This case increased my awareness of the variety of presentations, and patient populations that can be seen in the opioid crisis. I also gained an appreciation for the stigmatization patients with addiction and dependence face, which can lead to decreased follow-ups and impact treatment.

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COVID-19 Quarantine: How to make this time count

Staying Engaged academically while in quarantine:

By: Sanjay Menghani, MD-PhD UACOM-T



As an MD-PhD student currently in my graduate school years, it was inevitable that I would lose some of my preclinical medical knowledge. In working towards a PhD in Immunobiology, I am delving deep into immunology and microbiology, but there are other aspects of medicine that I need to constantly review. In talking to my medical school friends and colleagues, this difficulty in maintaining medical knowledge (especially while quarantined) is a common conundrum. As the COVID-19 pandemic has changed our lives, there has been an increase in focus on SARS-CoV-2 virology and public health topics. We see pharmacology and pathology of the disease discussed daily on the news. These topics are important, but it is equally important to keep up to date on the management of common chronic conditions, particularly because of the link between underlying conditions and high risk for severe COVID-19 disease. One of the ways that I try to maintain medical knowledge is by listening to podcasts. As a future internist, two Internal Medicine podcasts that are part of my weekly routine: the Core IM Podcast and The Curbsiders Internal Medicine Podcast. Both are great for diving into IM-relevant topics and learning about or reviewing the diagnosis, pathology, pharmacotherapy, and management of common diseases. While recent episodes (like the Core IM episode “#63: Practical Tips on COVID Floors”) are COVID-related, to older episodes are great for reviewing (like The Curbsiders episode “#177 Osteoarthritis Master Class with Tuhina Neogi MD, PhD”). In general, it may be hard to stay motivated during the pandemic, but it is important to keep in mind that our future patients depend on us to be as knowledgeable as possible. My motivation for continuing to study, read, and learn while quarantined is that I want to be the best physician-scientist that I can be.



Check out Sanjay’s recommended podcasts [here](#) and [here](#).

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How Medical Students at High Risk Can Help During the COVID-19 Pandemic:

By: Britt D.K. Gratrek, MD/PhD UACOM-T

You may feel frustrated because you cannot be on the forefront of the medical response, but there are so many ways that you can help during this pandemic without putting your own health at risk. Your community needs you to share your ideas, passion, and drive. Just because you need to be cautious to protect your own health (or the health of people you live with) does not mean that your contributions are any less valuable.

- **Help secure PPE and other supplies for frontline medical workers.** Work together; you can make calls and someone else can deliver supplies.
- **Telemedicine is now at the forefront of clinical experiences — seek opportunities to serve patients in high-risk groups.** Explore [ACP resources](#) in telehealth
- **Donate your scrubs, chemistry lab goggles, and other supplies to frontline workers.**
- **Volunteer with local or national hotlines such as [Emerge](#), [Crisis Text Line](#), and [The Trevor Project](#).**
- **Identify patient populations who may be losing access to essential services and look out for them by addressing resource shortages in real time. Give your local organizations a call.** Oregon Health and Science University (OHSU) medical students [released a public dissemination focused on the care for people with substance use disorders](#) and encouraged others to follow their lead by replication.
- **Seek remote opportunities at your state health department.**
- **Offer fun live events like telling stories or playing music and academic tutoring for K-12 students.**
- **If you can, make an appointment to donate blood and help advocate against the #BloodBan.**
- **Offer regular virtual meetups for classmates to join.**
- **Check on your classmates often.**
- **Every chance you get, encourage physical distancing.** Relay the seriousness of this pandemic and encourage people to **#StayTheFHome**.
- **Every opportunity is better with a buddy.** Encourage classmates to start opportunities with you.

To hear more from Britt, check out her Medium Post [Here](#)

During these uncertain times, it is more important than ever to take care of ourselves. [Check out this webpage full of helpful wellness resources from ACP](#)

Upcoming Events and Announcements:

The Navajo Nation COVID-19 Relief Fund

The Navajo Nation continues to be hit hard by the COVID-19 pandemic. As of May 10 -- 3,122 individuals have tested positive and there are 100 known deaths.

There are a number of unique factors that contribute to the spread of the virus in the Navajo Nation:

- A chronic housing shortage so an estimated half of all homes house multiple generations
- Many residents don't have running water
- Native Americans have a higher rate of morbidity factors, including diabetes

ACP Arizona is rallying support for those affected by encouraging the donation of needed medical and living supplies.

One of our ACP Arizona physicians, **Dr. Bernice Ly, FACP** works on the Navajo Nation at the Tuba City Regional Health Care Corp. She is taking care of hospitalized patients (with and without COVID-19) and serving her outpatient panel through phone calls. She has commented that, in addition to the supplies listed below, they are *“finding a shortage of vapotherm (high flow oxygen system) as more therapies are tried before intubation.”*

The Navajo Nation COVID-19 Relief Fund has been established to help the Navajo Nation respond to this pandemic. Monetary and non-monetary donations will address immediate medical and community needs.

Go to <http://www.nndoh.org/donate.html> to donate.

The Nation's immediate medical needs include the following:

N95 Masks, non-latex gloves (nitrile) and other medical grade gloves, goggles/eye protection, surgical and isolation masks, thermometers (no touch scan), portable pulse oximeters (handheld), ventilators, non-perfumed hand sanitizer (60% or more ethanol alcohol or 70% isopropanol), disinfecting wipes and sprays, alcohol-based cleaning wipes (e.g. Sani-Cloth wipes)

The Nation's immediate community needs include the following:

Disposable masks and cloth/fabric masks, cleaning supplies (including disinfectant wipes and spray), liquid hand soap and hand sanitizer, toiletries, thermometers, paper products (paper

towels, toilet paper, and tissue), non-perishable food, bottled water, baby necessities (including formula, diapers, and wipes), hay and feed for livestock, pet food, firewood and coal

COVID-Supporting Physicians and Practices in Arizona: A Panel Discussion

When: Friday, June 5th, 2020 from 12pm-1pm

Where: Online- Register [here](#)

2020 American Physician Scientist Association (APSA) West Regional Meeting

When: Saturday, December 5th, 2020

Where: University of Arizona Health Sciences Campus in Tucson, AZ

Come build new connections, explore this pivotal career, and add a line to your CV by presenting a poster or giving a research talk. Attendees will enjoy panels of in-training and established physician-scientists to share their experiences and discuss different careers in scientific medicine, hands-on clinical skills simulation workshops, an interactive session on microaggressions and implicit biases, as well as invited speakers who advocate for greater female and underrepresented minority representation in medicine and science. A catered lunch will double as a networking opportunity between trainees and potential mentors, with additional hors d'oeuvres preceding a concluding keynote talk from Dr. Nancy K. Sweitzer, MD, PhD, Director of the Sarver Heart Center, Professor of Medicine and Chief of the Division of Cardiology in the University of Arizona College of Medicine - Tucson. The American Physician Scientist Association (APSA) is a student led organization, by trainees, for trainees, and strives to be the student physician-scientists' leading voice for improving educational opportunities, advancing patient-oriented research, and advocating for the future of translational medicine.

Check <http://west.physicianscientists.org> for updates and registration.

2020 Arizona Chapter Scientific Meeting

When: October 23-24, 2020 *Subject to change due to COVID-19

Where: Tempe, AZ



This edition's "Broaden your differential"

Differential diagnoses: **Chest Pain** by Ashley Wang

A 77-year-old female presents with a two-hour history of sharp chest pain that radiates to the middle of her back, exacerbated by any change of position. Associated symptoms included shortness of breath, cough, and bilateral leg swelling. She denies fever, sputum production, diaphoresis, nausea, or vomiting.

Differential diagnoses include...

Cardiac:

- Myocardial infarction
- Aortic dissection
- Acute pericarditis

Pulmonary:

- Pulmonary embolism
- Spontaneous pneumothorax
- Acute chest syndrome

Gastrointestinal:

- Esophageal spasm
- Perforated duodenal ulcer
- Acute mesenteric ischemia
- Acute cholecystitis
- Acute pancreatitis

Musculoskeletal:

- Costochondritis

Psychiatric:

- Panic attack



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Interested in contributing to our next Newsletter or sharing an upcoming event? Submit your editorial [here](#)

Do you have thoughts on this edition that you would like to share with us? Please email kherreratheut@email.arizona.edu or owong31@midwestern.edu and tell us what you think!