# lifeline

SUMMER 2020

a forum for emergency physicians in california

THIS ISSUE'S TOPIC:

**CORONAVIRUS (COVID-19)**

## Management of Agitation During the COVID-19 PANDEMIC

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CALIFORNIA ACEP

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# Reprioritizing During COVID-19

Since our last issue of *Lifeline* our personal and professional lives, our nation, and our world have changed in ways we could not have imagined just a few months ago. While we have all adjusted in some manner to this "new normal" brought about by COVID-19 it will likely take years to truly process all that has and will happen due to this pandemic. As Coronavirus has done across the globe, it has forced California ACEP to reprioritize our goals for the year and adapt to the changes around us.

First, I want to acknowledge each of you for your tremendous efforts and for staying true to our mission of providing the highest quality of care to all patients and their communities. Emergency physicians are at the forefront of this pandemic and have demonstrated heroism above and beyond normal times - putting yourselves and your families at risk for contracting this virus, sometimes working without adequate PPE, providing unconventional care to patients who are not PUIs (patients under investigation) due to workflow changes or lack of resources, treating patients with COVID-19 without established evidence-based treatment decisions, responding to surges, then adapting to address low volumes, adjusting to the multi-level financial impacts, and the list goes on. Our specialty's quick, coordinated, and successful response has been an impressive, nearly impromptu feat. Thank you to each and every one of you for your heroism. We should feel proud to be part of such a remarkable specialty!

As COVID-19 began to emerge as a threat in California, California ACEP had to respond quickly. Our first priority was, and still is, the safety of our members. This included the health and physical safety of our members, our families, and our patients, professional safety from a liability perspective, and safety from the financial implications caused by the pandemic.

In February, it was apparent that our supply chain for PPE had been compromised. California ACEP worked through multiple leads to obtain PPE for our Emergency Departments (EDs). We also worked closely with the California Medical Association (CMA) and national ACEP to advocate on the state and federal levels for adequate PPE for emergency physicians and ED staff. Lastly, we leveraged our relationship with the media to have many of our members tell their stories as emergency physicians treating COVID-19 patients with limited supplies of PPE.

Once social distancing was enacted in California, we saw ED volumes plummet. It was clear to California ACEP that heart attacks, strokes, appendicitis, and many other disease processes had not been magically cured, but that patients were unable to access normal outpatient care or were afraid to come to the ED for fear of contracting COVID-19. California ACEP past president, Dr. Larry Stock, coined this phenomenon "COVID Collateral Damage Syndrome." We worked to educate our state legislature and the public on this phenomenon. National ACEP also worked hard to address this growing concern.

Keeping our members safe from liability during this unprecedented practice environment has been another focus for California ACEP. In preparation for a surge of COVID-19 patients in our state, as well as with the changing resources available, we have been forced to practice in ways that are not consistent with the standards we adhered to a few months ago. For example, we are foregoing certain tests to reduce potential exposure to COVID-19 or to reduce the use of PPE. We have been forced to make changes to our practice, yet liability protection has not been initiated in California. National ACEP is addressing this at the federal level. California ACEP is working closely with the CMA and the Governor's Office to address this as well. In addition, we partnered with the CMA to write Crisis Care Guidelines for the CMA and provided input on the California State Crisis Care Guidelines. These guidelines help, but do not provide the protection we are striving to obtain for emergency physicians.

Financial safety has been another significant focus for California ACEP during the pandemic. While our need to respond to COVID-19 has led to increased costs, the drop in ED volumes has led to decreased revenue, as well as loss of shifts and physician hours. In an already strained system, this could have severe and long-lasting impacts. California ACEP has taken several steps to address this. In April, we submitted a letter to Governor Gavin Newsom requesting financial relief for emergency physicians, totaling $204M. We also requested the Department of Managed Health Care (DMHC) provide regulatory relief for emergency physicians by requiring health plans to stop prospective claim denials and payment reductions. We will continue to work with national ACEP to provide financial safety to emergency physicians.

California ACEP remains dedicated to education during this pandemic. National ACEP created resources on how to manage COVID-19, as well as resources to help emergency physicians through this pandemic. California ACEP remains committed to hosting our annual conference for medical students and residents. Thanks to our dedicated and flexible conference coordinator, Dr. Jessica Mason, this year's AdvancED Conference will be held virtually.

Lastly, California ACEP continues to value its partnership with the EMS community. Through the COVID-19 pandemic we served on a CMA committee to address triage, transfer, and admission guidelines for patients being treated at alternative destinations, such as field hospitals. We also continue to partner with our EMS liaisons, Drs. Atilla Uner and Kathy Staats, to address changes that have occurred as a result of the Coronavirus pandemic.

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We will continue to monitor how the Coronavirus pandemic will affect our members and our EDs. We remain committed to keeping you safe - physically, mentally, legally, and financially. And we will continue to advocate for the safety of our patients. California ACEP will remain vigilant during these fluid times and we are open to your feedback on how we can support you through these unprecedented times. Thank you for all you do today and every day. Stay safe! ■

# Advocacy in the Time of COVID-19

By Elena Lopez-Gusman & Kelsey McQuaid-Craig, MPA, CAE

As with everything else in the world right now, advocacy has changed dramatically since March. The California Legislature recessed on March 20, 2020 due to statewide shelter-in-place orders. The period of March through May is typically remarkably busy in the State Legislature, including multiple hearings per day, bill deadlines, and lobby days. As you know, California ACEP had to cancel our annual Legislative Leadership Conference and ACEP held a virtual Hill Day.

When the Legislature recessed in March, they granted Governor Gavin Newsom the power to expend money without legislative authorization in order to more rapidly respond to COVID-19. Since March, the Governor has also issued numerous executive orders relating to the state of emergency he declared. California ACEP has engaged with the Governor's Office and various state agencies on liability protections, financial relief for emergency physician groups, problematic EMS non-transport policies in some counties, POLST and end-of-life care, triage/transfer/admission guidelines, and crisis care guidelines.

Additionally, we have connected members with legislators to do virtual constituent town halls, we sent an open letter to AirBnB and Vrbo in March calling on them to provide discounted housing for healthcare workers, we created a list of resources on our website for our members to access PPE and discounted hotel rooms, and we have coordinated numerous interviews with print and other news media about the risks of patients delaying emergency care (COVID Collateral Damage Syndrome). As you can see, California ACEP was busy working from home to address the needs of emergency physicians in creative ways.

The Assembly returned on May 4, 2020 with social distancing measures in place, still conducting virtual meetings with members of the public. The Senate reconvened the following week. While thousands of bills were introduced in February, the Assembly announced plans to table most of them and hear a reduced number of "priority" items. We continue to closely monitor these developments and will engage to influence legislation of importance to emergency medicine.

In May, the Governor released his revised budget proposal for the 2020-21 Fiscal Year. Due to the sudden and sharp economic downturn, the State finds itself in a more than $50 billion deficit. While the State had amassed significant savings over the last several years in anticipation of a downturn, those savings are still insufficient to cover a deficit of this magnitude. Thus, many cuts in many programmatic areas are

proposed. This proposed budget will be reviewed and altered by the Legislature, and a final budget will be approved by June 30.

While there are cuts to emergency physician reimbursement proposed, given the dire situation, we fared relatively well. Those of us who remember the last recession in California know this proposal could be far worse.

### The proposed cuts in the Governor's proposal most directly impacting emergency physicians are as follows:

**Drug and Alcohol Counselors in the ED** —California ACEP successfully secured $20 million in this year's budget (19-20 FY) to place drug and alcohol counselors in emergency departments throughout the state. Applications for grants were due this spring. Despite the chaos of COVID-19, 200 hospitals applied for these grants. Money was set to be awarded on May 15th; however, the Governor's Administration instead withheld those funds and has proposed to not distribute them and re-capture them as savings to deal with the budget deficit.

**Proposition 56 Adjustments**—Beginning in 2020-21, the May Revision proposes to shift $1.2 billion in Proposition 56 funding from providing supplemental payments for physician, dental, family health services, developmental screenings, and non-emergency medical transportation, value-based payments, and loan repayments for physicians and dentists to support growth in the Medi-Cal program compared to 2016 Budget Act.

While this cut will negatively impact the care our patients receive and the overall delivery system, emergency physicians were not receiving those supplemental payments and thus it is not a direct cut to emergency physician reimbursement. We continue to engage on the issue of loan repayments for physicians, especially as you all practice in unprecedented conditions.

**Medi-Cal Managed Care** —The May Revision proposes various changes to the way that managed care capitation rates are determined. These changes include various acuity, efficiency, and cost containment adjustments. These adjustments would be effective for the managed care rate year starting January 1, 2021 and would yield General Fund savings of $91.6 million in 2020-21 and $179 million in 2021-22, growing thereafter. Additionally, the May revision assumes a 1.5 percent rate reduction for the period July 1, 2019, through December 31, 2020, for General Fund savings of $182 million in 2020-21.

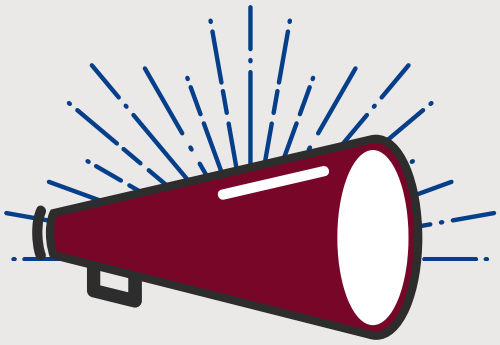
Details are not yet known on the capitation rate changes, however there will be a 1.5 percent rate cut to emergency physicians treating Medi-Cal managed care patients.

**California Advancing and Innovating Medi-Cal (CalAIM)** — The May Revision proposes to delay implementation of the CalAIM initiative, resulting in a decrease of $695 million ($347.5 million General Fund) in 2020-21. In addition, the May Revision removes $45.1 million General Fund in 2020-21 and $42 million General Fund in 2021-22 in associated funding for the Behavioral Health Quality Improvement Program.

**Full-Scope Medi-Cal to Undocumented Older Adults** —The May Revision proposes to withdraw this proposal for a savings of $112.7 million ($87 million General Fund), inclusive of In-Home Supportive Services costs.

At the time this article was written, the Assembly and Senate agreed to a budget proposal that rejected many of the Governor's proposed cuts, including the $20 million grant program to fund drug and alcohol counselors. Despite the Assembly and Senate agreeing to terms, they will still have to reach an agreement with the Governor. It is yet to be seen how those negotiations will shake out and California ACEP will continue to engage on the issues of utmost importance to emergency physicians.

If you have any questions about California ACEP's advocacy efforts or how you can get involved, contact us at **info@californiaacep.org.** ■



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GUEST ARTICLE |

# Violence in the Emergency Department: Reflections During COVID-19

By Michael Gisondi

Photo by M. Gisondi

In March 2020, the initial response to the COVID-19 crisis included a worldwide celebration of healthcare workers.

Would it surprise you to know that some of those same healthcare providers were the victims of violence in American emergency departments just months earlier?

The first reported case of SARS-CoV-2 in the United States was identified in Snohomish County, Washington on January 19, 2020. Less than 4 months later, the numbers of affected individuals are staggering. As of May 2, 2020, according to the Johns Hopkins Coronavirus Resource Center, 1,115,848 Americans tested positive for the virus and over 59,500 died from complications of COVID-19 disease. Many more symptomatic individuals were never tested.

Among the various national responses to coronavirus, perhaps the most uplifting are the celebrations of healthcare providers and other individuals working to keep essential businesses open. Though proud to be an emergency physician, I have very mixed emotions right now.

The cheers and thanks for healthcare workers continue in most communities, but not everywhere. Shelter-in-place restrictions are conflated with scientific conspiracies by small groups of protesters. National news outlets highlighted these individuals yelling at nurses who staged peaceful, counter-protests. My 'non-medical' friends were shocked by those responses; however, none of this should be surprising.

Emergency departments frequently manage violent outbursts by patients and visitors, often resulting in physical injuries to staff. In a 2009 study, 25% of emergency nurses were the victims of physical violence in a 36-month period. I contributed to a 2016 study of workplace violence experienced by emergency medicine residents in New York City, which found an even higher prevalence. During their training, 96% of emergency medicine residents experienced verbal harassment and 65% were the victims of physical violence.

I'm reminded of that study today, as the nation celebrates emergency providers caring for the sick in New York, who dutifully go to work despite risks associated with inadequate personal protective equipment and poor facilities. Remember, that is the same city in which emergency physicians cared for those injured on 9/11, then continued to be harassed in their workplaces months later.

Nurses are the most trusted professionals in the United States, with physicians ranked right behind them. Yet, these respected individuals have been the victims of harassment and physical violence in emergency departments for years, a story under-reported by the national media. I hope that changes after COVID-19.

I placed the blue awareness ribbon pictured above on the tree in front of my home, in honor of the heroic staff members that I proudly work with every day in the emergency department. ■

*This article was originally published on May 2, 2020 on www.michaelgisondi.com.*

GUEST ARTICLE |

# I Would Do It Again

By Thomas Sugarman, MD, FACEP

On April 23, 2020, I arrived at Elmhurst Hospital in Queens, one of the New York City hospitals hardest hit by COVID-19, to begin orientation to provide medical relief in a temporary ICU. The next day, 3 more California emergency physicians arrived at Elmhurst— Drs. Stephanie Loe, Susan Munden, and Louis Tran. My group, Vituity, had been asked by Governor Gavin Newsom's office to deploy doctors to travel to New York to provide clinical care at New York Health and Hospitals, the largest safety net hospital system in the country. Within a week, we deployed 14 doctors to several different hospitals. As of June 10, 2020, Vituity has sent approximately 55 doctors, PAs, and NPs to serve. Our goals were to provide medical care, relieve overburdened healthcare workers, and gain knowledge to better prepare California for COVID-19 surges. I feel privileged for the opportunity to serve in this role. I worked at Elmhurst for 2 weeks, serving as a critical care consultant.

By the time we arrived, New York's emergency department (ED) visits were down, similar to what happened in California. So, at Elmhurst we were asked to work in temporary ICUs. In preparation for COVID-19 patients, Elmhurst had greatly expanded its ICU capacity. However, doctors who worked at the start of the surge in mid-March describe a surge that exceeded expectations in both magnitude and speed. It seemed that, almost overnight, the hospital was overrun with critically ill COVID-19 patients. ICU expansion was further increased to an eventual capacity of about 170 beds, from a pre-COVID baseline of about 30.

The entire city came together to battle COVID-19. Every night at 7pm, people all over the city opened their windows, applauding and cheering for the health care workers. That gratefulness was very moving. Restaurants and volunteers provided food to the hospitals and healthcare workers. A mom's group with tens of thousands of members formed to provide support to healthcare workers. They helped by providing needed items like hair coverings, hand sanitizer, and food. It seemed that everybody in the city recognized and worked collaboratively to mitigate the crisis.

A4 had been a stepdown unit. When I first walked in, it was apparent that it was not a typical, modern ICU. Most patients were 2 to a room, all on ventilators and with multiple IV drips. It was quite sobering, because an ICU usually has patients with multiple different diseases and various levels of seriousness. But in this case, there were 35 patients with COVID-19 and multisystem organ failure. The personnel on the unit were incredible, a mix of New Yorkers, doctors from non-traditional adult ICU services (medicine, pediatrics, psychiatry) or hospitals, and travelers brought in by FEMA. We worked with people from various specialties and different healthcare roles with multiple levels of experience and expertise.

All of the workers were dedicated to caring for the patients in the midst of a city-wide disaster with limited resources. Many of the healthcare workers I met worked long hours, sometimes 3-4 weeks with no days off. Their perseverance and dedication was humbling.

My role was to support a medicine team—attending, resident, and intern—by providing critical care expertise. Given the rapid increase in critically ill respiratory patients, Elmhurst's critical care attendings and fellows were overwhelmed. We served in a consultant role, a layer between the Elmhurst critical care attendings and the medicine teams primarily responsible for the patients in the ICU. Of course, as an EP, I have some critical care training and experience, but I am not an intensivist. In the week leading up to my arrival, I spent time reading and using online education to learn about ventilator management and the latest clinical information on COVID-19. If there was a clinical issue outside of our abilities, we would request assistance from an Elmhurst critical care attending.

In our role as critical care consultants, we helped manage ventilators, resuscitations, and procedures. Typically, we would round with the medicine team twice a day and spend most of the day assisting them with patient care. I put in many central lines, arterial lines, and dialysis catheters; generally teaching an intern to do the procedure. Each procedure took longer than usual because finding the ultrasound machine and equipment often took a lot of time. Of course, teaching a procedure takes longer than doing it primarily. Some of my colleagues provided night ICU coverage allowing the patients to be actively managed 24x7. Additionally, we rounded on the non-ICU patients getting supplemental oxygen, hi-flow nasal cannula, or non-invasive positive pressure. The purpose of these rounds was to make pulmonary recommendations to the patients' primary teams, often comprised of non-internal medicine residents. Anecdotally, these rounds helped identify deteriorating patients early and prevented "crash" intubations and resuscitations.

The experience was like being a resident again. We were treating a new disease. The disease spreads quickly, patients deteriorate quickly, and information changes and is disseminated quickly. All of this led to a very steep and ever-changing learning curve. During the 2 weeks I was there, therapies changed multiple time—hydroxychloroquine fell out of favor, convalescent serum was introduced, and remdesiver became available. I quickly learned a lot more about ventilator management, but also realized there was no "right" answer. At least half the patients required renal replacement therapy. This was particularly challenging because dialysis machines were in short supply and the patients were often shocky. Because the evidence-based knowledge base was so sparse, we would often try various interventions based on gestalt. With guidance from the Elmhurst critical care attendings our gestalt quickly improved. I completed residency prior to ultrasound being introduced into EM, so I am not as facile as more recently trained EPs. However, my colleagues assisted me and taught me a great deal and my ultrasound skills vastly improved.

We were quickly immersed in a hospital system with unfamiliar workflows, equipment, and culture. There were at least four different kinds of ventilators, including LTV transport ventilators that had no waveform displays used for about 1/3 of the patients. New workers joined and left the team frequently. Resource limitations impacted care. Translation was difficult due to bans on visitors, an inadequate supply of iPads for the translating services, and the difficulty of communicating, especially with iPads, in a noisy ICU environment. Flexibility was important because of the frequently changing clinical guidance, equipment, and personnel.

Some of the work was challenging for unexpected reasons. For example, there was an extremely ill patient with a complicated family situation. The team had discussions with the patient's family, but there was controversy as some family members wanted to exclude other family members. Clinically, the team agreed that the patient should be DNR. But there were various opinions on the team as to the ethics and legality concerning information flow and decision making (because the patient had no capacity). It was further complicated because I was unfamiliar with New York law. Eventually, the medicine attending and I met with the risk managers and the head of bioethics. After our meeting we were able to develop a solution acceptable to the entire medical team and most of the family. Ironically, the patient was improving at the time I left New York, but I do not know the eventual outcome.

Vituity is currently working on a more comprehensive report, focusing on personnel relief issues. We plan to make implementable recommendations to the State for hospitals planning for and then requiring outside workers, and the workers providing the relief. We hope this will help our State better prepare for any surges and also help other visiting practitioners working in impacted communities.

The opportunity to care for patients, provide relief to NY colleagues, and learn about COVID-19 was incredibly rewarding. On the other hand, the whole situation was heartbreaking. Watching patients suffer and die, separated from their families was difficult. Making critical decisions with a limited knowledge base was stressful. Observing the terrible toll on New York was sobering. Worry about getting sick or bringing COVID-19 home to my family was anxiety producing. Due to our training and experience, emergency physicians excel at providing care with limited information in unfamiliar environments. I hope I never have to use what I learned in California, but, if and when, our state experiences a surge, I feel more prepared to care for our patients after my New York experience. I am grateful I was able help and, although I hope it is not necessary, I would do it again. ■

# NEW YORK

By Chi Perlroth, MD, FACEP

In late April of this year, California Governor Gavin Newsom asked his staff to gather a group of emergency physicians to fly to New York City, one of the hardest hit epicenters of the COVID-19 pandemic. The mission was to send medical personnel to New York to help with the surge of COVID patients and to bring back clinical and systemic lessons learned while there. I, along with 13 other Vituity emergency physicians, mobilized within 5 days of getting the call and flew to New York City with not much more information than our New York Public Hospital assignment and a name and phone number of a contact person at our respective sites. I was assigned to a Trauma Center, Burn Center, Cardiac Center, AIDS Center serving an underserved community in New York City.

**My goals for this trip were simple: 1) Be helpful. 2) Don't get sick.**

**My first goal: Be helpful.** During my first few days, I thought maybe I missed my moment to fully be the help I wanted to be. Prior to my trip, I read as much as I could about the disease: about special ventilator settings, the various treatments and their failures, the potential complications of medications, and the multi-organ involvement of this new virus. Upon arrival, I was indeed seeing positive COVID and rule out COVID patients one right after another, more than the combined sum of patients I saw in my local California emergency department (ED). However, I suppose I was expecting to see the volumes of patients I had been reading about in the news and the stories of overwhelmed hospitals written about in our national physician communications. I expected to be working shoulder to shoulder with exhausted New York doctors, in an ED busting at the seams with patients doubled up in single space ED rooms and lining every inch of the hallways, all on ventilators. That was not the case when I arrived. But that WAS the case just two weeks prior.

I heard the stories, from our site and other sites all over New York. I no longer could remember where the stories came from. It became one collective story, of patients dying while not being on monitors because there were no monitors left, of patients self-extubated from their ventilators as the hospital was running out of sedation drips, of patients looking well one minute and in severe respiratory distress the next, and of more than one hundred patients intubated in the hospital that only had 15-20 ICU beds, 30-40 of those intubated patients still in the Emergency Department for days. Doctors were intubating in the hallways, figuring out how to quickly disinfect materials because they no longer had the luxury of new or sterilized supplies, using

Labor and Delivery wards to see ALL pregnant patients, not just over 24 weeks, Pediatric colleagues seeing all arrival patients up to age 25 in the Pediatric Ward instead of the ED, surgeons seeing abdominal pain patients and minor or major injury patients in the ED, surgeons and residents and medical students rounding and acting as interim ICU docs in medical ICUs, Palliative Care Team rounding in the ED and ICUs, having difficult but very needed conversations with patients directly or with their families by phone so that the physician staff can keep moving on to take care of the next decompensating patient.

Speaking with medical directors of various units, I also heard stories of how some hospitals mobilized an Incident Command Center quickly, led by hospital leaders and administrators and how well they worked in collaboration with medical and nursing leaders, New York Hospital systems, City and County offices, EMS, skilled nursing facilities, cancer centers, and orthopedic hospitals. Physicians, nurses, and staff came together to reach beyond their usual and designated roles, crossing unit lines to do what had to be done. Those hospitals that were not able to coordinate and collaborate well suffered greatly in terms of patient lives, staff and physician physical and mental health, and ultimately recovery from the surge—as I was there, many were still struggling to recover.

Listening to these stories from the emergency physicians and staff on some late-night shifts when the department slowed down was how I further felt helpful. Many said they hadn't talked about their experiences with their families, friends, or colleagues yet, and felt a strange sense of relief sharing the stories with someone who might be able to imagine the heart-breaking and challenging medical and human scenarios. Seeing patients alongside them after they were able to take a week or two off after the war-like conditions they experienced in weeks prior was also helpful to them, they said to me when I apologized that I was not able to be there earlier. Many of the doctors, nurses, and staff who were themselves sick with COVID or home with their sick family members had just started to return after recuperating or caretaking. Having the extra staff seemed to give them room to breathe, diminish their anxiety about coming back to work, and allow them to process their experiences. Continuing to tell their stories is how I decided to keep being helpful even after I left New York.

**Back to my second goal: Don't get sick.** I am lucky to be able to say I did not get sick while I took care of many, many sick COVID patients in New York. While I was there, the city was still struggling with supplies of PPE, whether they be N95 masks that passed each individual fit test, or face shields and gowns. The hospitals were doling PPE out to individual staff and physicians, as they had experienced extreme shortages previously. I brought my own PAPR Hood, but it stayed in my duffle bag at my hotel, as my local ED did not have PAPR machines to connect it to. I used one N95 mask each 12-hour shift as a significant portion of my patients were COVID patients. I covered my N95 with a surgical mask in case of splatter or patients coughing. My face was covered with a plastic shield that I wiped down and disinfected after each patient, which I used the whole two weeks there (and still use now). I only used plastic gowns when seeing a trauma patient or doing an aerosolizing procedure or needing to get close to a coughing patient who was too sick or altered to keep their surgical mask on. Strangely, I felt completely safe from COVID while at work. My system for donning and doffing, which I spent a few weeks teaching my emergency medicine colleagues at home just prior to my trip (mainly with PAPRs but the other stuff applied), kept me disciplined about my exposure and gave me a sense of control and good habits.

I came back home to California with clinical and systemic information in hand. Now back at work at both my local EDs, I am thankful every single day that we in California had the luxury of time to plan for a surge the best we could in terms of resources, testing, physical plant, our leadership in coordinating with local, regional, and state stakeholders, and making sure we included staff and physicians at every level to do this the best we know how.

Having been in NY, seeing how prevalent COVID was there and hearing about how every single person was impacted (whether it be family or friends), I can clearly imagine that we could have experienced the same surge. After my time in NY, I am even more convinced that our State and local leaders had the foresight to initiate our shelter in place and social distancing as soon as we did, in effect saving thousands and thousands of lives. When doctors and staff were asked how the NYC hospitals experienced improvement in patient volumes by the time I arrived in New York, the answers were repeatedly, "Because people are finally serious about Shelter in Place" and "The weeks of Shelter In Place have finally kicked in." Still, one Sunday night during my night shift as I read in my email that Contra Costa County had a 2020 TOTAL death count of 29, New York City was celebrating that their death rate had decreased to ONLY 380 that Sunday. 380 deaths in ONE DAY, a few of whom I myself saw while I was working. This was in contrast to the NYC numbers of more than 800 deaths PER DAY from the previous few weeks.

I know we are amidst uncertain times. Even as I speak, our country and our local cities are experiencing heartbreak, unrest, and continuing challenges. What I know for certain is that we in California, in our counties, and in our local hospitals are doing a fantastic job with keeping the COVID pandemic at bay. Even as we individually may feel differently about shelter in place and how to reopen again, I feel confident that we are all doing the best we know how, to keep our communities, our families, our patients, and each other safe.

**Please be safe and take care of one another.** ■

GUEST ARTICLE |

# IT WAS LIKE A WAR ZONE

By Nick Sawyer, MD, MBA, FACEP

When UC Davis emergency medicine senior resident Dr. Alex Schmalz and I arrived at Elmhurst Hospital in Queens New York City on our first day of a two-week volunteer on April 24, 2020, we met with a very nice coordinator who helped us get our badges and log into the hospital's EHR. Prior to arrival we were advised that there was a high need for people with critical care experience in the hospital to care for the tidal wave of patients from the 3 preceding weeks. While we are both emergency physicians and had done multiple ICU rotations in residency, as well as providing critical care in the emergency department, we were not accustomed to caring for critically ill patients' long-term care needs in the ICU. We asked the volunteer coordinator if there was any current need for emergency medicine positions at any of the 11 New York Health + Hospital facilities. She opened up her dashboard to check for us but there was currently no need for emergency medicine physicians. Little did we know the amount of help needed….

We were next introduced to Dr. Alfred Astua, Chair of the Department of Pulmonary Critical Care at Elmhurst. Dr. Astua sat down with us and described the events that had occurred over the prior three weeks, the current situation, and how we could be most helpful. He was deeply appreciative of our volunteerism. He said that Elmhurst Hospital is usually an eight bed ICU, with a 9 bed CCU and 12 bed STICU, but currently had approximately 160 patients on ventilators due to coronavirus. He also told us that they had transferred approximately 540 patients out of Elmhurst. Near the beginning of the mass influx of coronavirus patients there were five pulmonary critical care faculty at Elmhurst. However, by the time of our arrival they were down to just two, Dr. Astua and Dr. Elizabeth Auerbuck, the Fellowship Director of their Pulmonary Critical Care Program. He told us that one of the partners was older and at risk of becoming ill so Dr. Astua had asked that he work off the floor on administrative tasks. Another member of the team became critically ill with coronavirus, had been admitted, and was nearly intubated. They remained ill, requiring supplemental oxygen 24/7 and would not be returning to work anytime soon.

Next, Dr. Astua described our role at Elmhurst. He described how the hospital had turned a 40-bed step down unit called A4 into a COVID-19 ICU. There were four teams in A4 made up of two residents per team and one internal medicine physician per team. In addition to managing all the other ventilated patients in the hospital, Drs. Astua and Auerbuck had been serving as the pulmonary critical care consult for all 40 patients in A4, addressing things like the need for vasopressors, placement of central lines in arterial lines, vent management, and decisions about when to place hypoxemic patients in the prone position. Now that Dr. Schmalz and I had arrived, we were to take on a team of two residents managing critically ill COVID-19 patients. We had no idea what we were about to see, but we were pleased to be there to help.

What we saw was A4 filled with 40 patients who would have been the sickest patients on a regular day in your average ICU. We quickly learned that COVID-19, as a syndrome, is one that we have not seen before and that the novel aspect of the so named novel coronavirus was startling in the destructive ways the virus attacks the body. Most notably, patients with COVID-19 were prone to hyper coagulable states. We saw unimaginable D-Dimer levels as high as 39,000. Many of our patients had pulmonary emboli. Even still, many of the patients did not have pulmonary emboli and the thought is the hypercoagulable state was creating micro thrombi in the pulmonary vasculature which was leading to hypoxemia and respiratory failure. Most of the critically ill patients required hemodialysis. Patients were advancing from normal renal function to renal failure requiring hemodialysis in

just two days when the average, per a nephrologist we spoke with at Elmhurst, was eight days in critically ill non-COVID-19 patients. Resident physicians on the neurology service told us that patients in their 20s, who had presented with acute CVA as their only symptom of COVID-19, underwent mechanical thrombectomy to remove large clots in their MCA. They told us that during the procedure they saw new clots forming in the vessel as they were removing the existing clots. I remember looking out the window in a patient's room into the center of the hospital where shipping supplies are received and saw two refrigerated trucks, where patients' bodies were being stored due to the overwhelming number of deaths in the hospital.

We spoke with a resident who had been present at Elmhurst in the prior three weeks during the overwhelming influx of COVID-19 patients. She told us that she had run multiple codes at the same time, they were intubating patients in hallways and due to a shortage of medications were pulling epinephrine drips off of dead patients only to be used on patients who were actively hypotensive and dying. She said, "It was like a war zone." I have no doubt this was true based on what we were seeing. While we were there a top emergency medicine physician, Medical Director of New York-Presbyterian Allen Hospital, Dr. Lorna M. Breen committed suicide on April 27th. Dr. Breen's father told the New York Times that Dr. Breen had "described the devastating scenes of the toll the coronavirus took on patients" and that "she tried to do her job and it killed her." Dr. Breen had no history of mental illness.

Indeed, it was challenging and troubling to care for these patients, and I was only at Elmhurst for 2 weeks. All we had to offer was usual supportive intensive care - attempting to optimize ventilator settings as this strange form of ARDS lead sequentially from normal compliance to stiff fibrosed noncompliant lungs that we were unable to adequately ventilate without resulting astronomically high peak and plateau pressures risking barotrauma. We attempted to balance preventing barotrauma with the need to adequately ventilate patients, but permissive hypercapnia soon became severe respiratory acidosis and we were unable to further adjust ventilator settings to improve ventilation given the poor lung compliance (aka extremely stiff lungs).

Our youngest patient was 51 and our oldest patient was 75. All were non-white. Amongst the 13 patients that we cared for on our team, they spoke a total of seven different languages, exemplifying the diverse population that lives in proximity to Elmhurst Hospital. Many of our patients had BMI that met the clinical definition of obesity, some had diabetes, hypertension, and high cholesterol but a few had no other medical comorbidities but hypertension.

Nearly all of our patients received hydroxychloroquine/azithromycin or convalescent plasma, and some received sarilumab (an IL-6 inhibitor). Remdesivir was not available to our patients at that time, however upon review of the data this medication does not appear to be the silver bullet needed to treat critically ill coronavirus patients as it offers no mortality benefit. It certainly didn't help to hear President Trump suggest the use of injecting bleach and inserting UV light into patients' bodies to kill the coronavirus, which he stated while we were there.

We spent many endless hours on A4, covered head to toe with PPE. This included a surgical cap, eye protection, and an N95 respirator covered by a surgical mask, as well as a face shield on top of that. We also wore plastic gowns and gloves. All of this was required to be worn at all times while on A4. As you can imagine, breathing your own CO2 into an N95 for hours on end can make you feel somnolent. We all agreed that we were likely suffering acute kidney injury due to the amount of sweating we were doing while on the unit.

We had many deaths on our unit, but not due to lack of intensive work on our part. The lack of effective treatment for COVID-19 and the disease process ultimately took its toll, leaving patients on maximum life-support with inability to oxygenate or ventilate and patients with refractory septic shock on multiple vasopressors. One of the saddest parts of the experience was having to, with the help of an outstanding social worker, lead families through the process of saying goodbye to their family member over FaceTime. This was horrendously sad and tragic. Patients' family members were not allowed on A4 due to the risk of coronavirus transmission; the last time many of these patients' family members saw the patient was when they brought them to the hospital weeks before.

To say that the experience at Elmhurst was eye-opening would be an understatement, but it has left me with a very high level of concern for my colleagues, myself, and the population we care for across the state. There is currently no national testing strategy, no effective treatment, and a safe and effective vaccine is very likely still at least 12 months away at the very minimum. In reality, it will likely be years. My greatest concern is that even as we have surpassed 110,000 deaths in the United States since March 2020, it is important to recognize that the greatest number of deaths that occurred in the 1918 flu pandemic, which led to the deaths of over 675,000 Americans, occurred during the second wave in the winter of 1918 to 1919. Furthermore, with the minimizing of the pandemic narrative coming out of the federal government we are now seeing a premature opening of the economy which has already led to coronavirus hotspots throughout the nation overwhelming their local hospital capacity.

Taken together, we as emergency physicians and frontline providers will be tasked with caring for future coronavirus patients. All of the failures of federal leadership and failures of people to practice appropriate masking and social distancing will, in my opinion, inevitably lead to a second wave that will fall on us. Given this, I have one question for you - what is your hospital doing to prepare for a second wave of COVID-19? You may want to start asking that question now. ■

## ANTELOPE VALLEY FIELD RECOVERY CENTER

# *A pandemic surge unit to offload stable, hospitalized COVID-19 patients*

By Larry Stock, MD, FACEP

In March, predictions of pandemic surge and projections for hospital and ICU bed capacity were concerning. I imagined COVID admitted boarders in the emergency department (ED) and the challenge of seeing new arrivals to the ED, while keeping our staff and non-COVID patients protected from viral exposure. The Antelope Valley Hospital operates approximately 230 beds. Our neighbor hospital operates about 150 beds. With a population of 500,000, we did not have enough hospital beds to meet the projected need.

We decided to create a field hospital model to offload stable, recovering admitted COVID patients who could spend the second half of their hospitalization in an off-site, low acuity unit. This would create hospital capacity and allow new, less stable arrivals to be rapidly assessed, stabilized, and admitted. We predicted the average length of stay for non-ICU COVID patients would be approximately 10 days and that by day 6 they might be stable for movement to a lower level of care. For some, a Skilled Nursing Facility or home with visiting home nurse and respiratory therapy would be the best solution. For ambulatory patients needing oxygen and oral medications, the Field Recovery Center (FRC) might work.

The FRC was designed to be an offsite, inpatient hospital environment. A collaborative process ensued be tween the Hospital and the City of Lancaster.

The City secured the County Fairgrounds for the FRC. The Fairgrounds agreed to supply the space, water and sanitation, power, Wi-Fi, communication, food, and parking. The County Sheriff would provide security. The Salvation Army supplied cots, blankets, and hygiene kits. The Antelope Valley Transportation Authority agreed to provide transportation between the hospital and the FRC. Additional partners, including Virgin Galactic, The Space Ship Company, and NASA, helped us plan our oxygen system options.

Our FRC task force, all worked on a novel, low intensity model meant to transition patients from hospital to home within five days or less:

Nursing Care focused on pulse-ox and vital sign monitoring, as well as oral medications and over-all assessment of patients. Case Management began planning for transition of care to home as soon as the patient arrived. Respiratory Therapy coordinated the need and use of oxygen and low-tech positive pressure exercises. Physical Therapy would work to ensure patients would address any de-conditioning and maintain an ambulatory state. Pharmacy would oversee an on-site pharmacy consisting of basic oral medications and insulin. IT ensured mobile units, FRC labeled bed spaces, and a continuous electronic environment from onsite to offsite hospital environment.

The physician coverage was a novel hybrid of inpatient hospital-based hospitalists and FRC volunteer physicians. The FRC physicians' main jobs were to identify any deteriorating patients who needed to return to the main hospital, identify patients ready for discharge home, and coordinate with the patients' hospitalist by video phone chat to facilitate discharge to home.

The expected surge has not yet occurred, but the FRC remains ready for use. As in Game of Thrones, winter is coming and we will be ready. ■

# Establishing and Operating **The Los Angeles Surge Hospital**

By Marc Futernick, MD, FACEP

As COVID-19 numbers were increasing this spring, California State leaders decided they wanted to prevent the types of overwhelming situations being faced in other areas, where resources were insufficient to offer optimal care to all in need. California leased a hospital in the heart of Los Angeles that had recently closed, St. Vincent's Medical Center. They partnered with Dignity Health and Kaiser to set it up and manage the operations and, subsequently, with VEP Healthcare to provide the staffing, which is how I became involved as a medical director.

The Los Angeles Surge Hospital was designed to accept seriously ill COVID-19 patients from hospitals throughout the area who were at capacity and needed help. Most of the patients were intubated, but some were on high flow oxygen, and some were of lower acuity based on the needs of the requesting hospitals. We had lab, pharmacy, X-ray, and CT, but otherwise resources outside the ICU and step-down unit were minimal, including only tele-consultants for specialized needs.

Fortunately, the overwhelming situations encountered elsewhere did not materialize in Los Angeles, although several hospitals really needed the relief valve that we provided. We opened in mid-April and shut down on the Friday of Memorial Day weekend. Although there was discussion about the potential of a near-term surge, the State decided to close the hospital without plans to re-open. I can only speculate as to the exact reasons, but I suspect it was a combination of factors. Even though there were hospitals who really needed help, community-wide there was plenty of capacity. Nearly all the patients transferred were uninsured or on Medi-Cal. We had to transfer out about 10% of our patients due to lack of proper resources for certain conditions that developed. Considering the total number of patients, and the cost of setting up a functioning hospital, the cost per patient was substantial. My sense is that future surges would be best handled by better coordination and regionalization of care, particularly for under-insured patients who will not be readily accepted by private institutions with capacity.

I had the privilege of working with a dedicated, mission-driven group of administrators, directors, and physicians. We all took time away from our usual jobs, exposed ourselves to increased risk, and came together for a common purpose. Although shorter than expected, it was an experience I will not forget. I believe we provided excellent care to a population in need and provided insurance against the unfathomable situation of rationing ventilators or ICU beds, as has happened elsewhere. We also gave the hospitals some time to prepare for the new reality of multiple surges of critical COVID-19 patients. ■


# FIRST DO NO HARM WITH COVID-19:

## *Corona Collateral Damage Syndrome*

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***Disclaimer:*** *Due to the rapidly evolving nature of this outbreak, and in the interests of rapid dissemination of reliable, actionable information, this paper went through expedited peer review. Additionally, information should be considered current only at the time of publication and may evolve as the science develops.*

Communication is complex in that what we say is not always what is heard. Communication that is intended to help can sometimes result in doing harm. The COVID-19 pandemic is a public health emergency. While we rapidly learn of the scientific and healthcare aspects of this disease, there is an opportunity to better understand the consequences of well-intentioned communication by experts.

Given the nature of the rapid global spread of the virus and the high fatality rate of those sick enough to require intensive care, public health and elected-leader messaging of "Stay at Home" was appropriate. With no vaccine or cure, the public health tools of social distancing, respiratory and hand hygiene, and stay-at-home orders were both appropriate and effective at flattening the curve and delaying the peak caseload of COVID-19. Most locations in the US were successful in avoiding overwhelming hospital resources including intensive care units.

However, there are increasing reports from the US and other countries that outside of high-demand hot spots like New York City, most emergency departments (ED) and hospitals have experienced a steep decline in their patient census. ED visits declining 50% or more through the end of April have been widely reported.[1] Emergency physicians, cardiologists, neurologists, and acute care surgeons wondered, where did all the acute, non-COVID-19 patients go?[2,3] While the number of trauma incidents may have dropped off due to stay-at-home orders, it is unlikely that heart attacks, strokes, and acute surgical emergencies had stopped occurring.

Then we started seeing *delayed presentations* of many diseases with their resulting complications: appendicitis with rupture; completed heart attacks; and strokes with significant deficits, to name a few.[4,5] These are *time-sensitive* conditions in patients who were coming in past the optimal window for treatment. Why did this occur, what role did our messaging play, and how can we correct this in the future?

Corona collateral damage syndrome (CCDS) is the clinical condition resulting from a delay or failure to seek or receive care for acute emergencies for non-COVID-19 medical conditions.[3] The key cause of CCDS is the fear of catching the virus by coming for care to hospital EDs or other healthcare facilities. This fear appears to have been principally associated with the strong but important message: "Stay at Home."

This message was said repeatedly by authority figures and amplified by news networks over the past few months. This barrage of messages was effective in getting the public to social distance and stay home. However, the unanticipated collateral damage was the fear of seeking help for *other* concerning symptoms.[6] We have the opportunity now to course correct and nuance the message:

> "If you are having an emergency, go to the Emergency Room. *Hospitals have taken dramatic steps to protect emergency patients from contracting COVID-19."*

We are reminded that language matters and communication has consequences, some unforeseen. Always best to ask the listener what they heard. ■

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## REFERENCES

1. Bruggeman L, Bhatt J. They are terrified: Fearing coronavirus, people with potentially fatal conditions avoid emergency care. Available at: https://abcnews.go.com/Health/terrified-fearing-coronavirus-people-potentially-fatal-conditions-avoid/story?id=70306931. Accessed April 30, 2020.
2. Krumholz HM. Where have all the heart attacks gone? Available at: https://www.nytimes.com/2020/04/06/well/live/coronavirus-doctors-hospitals-emergency-care-heart-attack-stroke.html. Accessed April 30, 2020.
3. Rubin J. Where are the strokes and the heart attacks? Doctors worry as patients avoid the ERs. Available at: https://www.latimes.com/california/ story/2020-04-22/coronavirus-emergency-rooms-numbers-decline. Accessed April 30, 2020.
4. Love S. Even People without coronavirus are getting sicker right now. Available at: https://www.vice.com/en_us/article/v74a54/even-people-without-coronavirus-are-getting-sicker-right-now. Accessed April 30, 2020.
5. Kolikonda MK, Hussain MS, Uchino K. Invited commentary: acute stroke preparedness during the Covid-19 pandemic. Available at: https://blogs. neurology.org/covid-19-coronavirus/invited-commentary-acute-stroke-preparedness-during-the-covid-19-pandemic/. Accessed April 30, 2020.
6. Rosenbaum L. The untold toll — the pandemic's effects on patients without Covid-19. *N Engl J Med.* 2020. In press.



# Early Multi-organ Point-of-Care Ultrasound Evaluation of Respiratory Distress During SARS-CoV-2 Outbreak: Case Report

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**INTRODUCTION:** Coronavirus disease 2019 (COVID-19) is caused by the virus known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Several case series from Italy and China have highlighted the lung ultrasound findings of this disease process and may demonstrate its clinical utility during the current pandemic.

**CASE REPORT:** We present a case of a COVID-19 patient who presented to the emergency department twice within a 24-hour period with rapidly progressing illness. A multi-organ point-of-care ultrasound (POCUS) evaluation was used on the return visit and assisted clinical decision-making.

**DISCUSSION:** A multi-organ POCUS exam allows for quick assessment of acute dyspnea in the emergency department. As the lung involvement of COVID-19 is primarily a peripheral process it is readily identifiable via lung ultrasound. We believe that when applied efficiently and safely a POCUS exam can reduce clinical uncertainty and potentially limit the use of other imaging modalities when treating patients with COVID-19.

**CONCLUSION:** This case highlights the utility of an early multiorgan point-of-care assessment for patients presenting with moderate respiratory distress during the severe SARS-CoV-2 pandemic. [Clin Pract Cases Emerg Med. 2020;4(2):129–133]

**KEYWORDS:** *COVID-19; SARS-CoV-2; ultrasound; respiratory distress.*

## INTRODUCTION

Point-of-care ultrasound (POCUS) examinations of patients with acute respiratory distress have been demonstrated to be useful for patients with acute unexplained dyspnea in the emergency department (ED).[1] Multiple previous ED studies have demonstrated the ability of clinicians to rapidly and accurately differentiate a cardiac etiology (specifically acute decompensated congestive heart failure) versus other causes of acute dyspnea.[1,2] In our early experience during the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) outbreak, with multiple patients presenting with acute dyspnea of suspected parenchymal pulmonary pathology, we found that the prompt differentiation between an underlying cardiac versus pulmonary source can be instrumental in both triage and early resuscitation.

Early reports from China detailed the utility of computed tomography (CT) in demonstrating the classic multifocal, ground-glass opacities that are commonly present in patients with pulmonary manifestations of the rapidly progressing viral pandemic.[3] Our early, multi-organ ultrasound first strategy in the evaluation of the severely dyspneic patient centers on not assuming all patients who arrive in our ED during this large wave of patients are purely pulmonary in nature (even though we recognize the high prevalence of disease), and using a multi-organ POCUS examination to help guide initial treatment and resuscitation. We also believe that incorporating a system-based approach in this manner will allow a reduction in CT imaging and reduce the ever-present issues of departmental contamination and CT disinfection.

Recent studies out of China have detailed ultrasound findings associated with coronavirus disease 2019 (COVID-19).[4,5] While these findings are not specific, they are likely clinically useful in patients with severe dyspnea in conjunction with a multi-organ evaluation of cardiac

function and the inferior vena cava (IVC). Furthermore, we believe that these non-specific ultrasound findings can be used in conjunction with clinical and laboratory parameters to assist defining pulmonary involvement of SARS-CoV-2, especially as it typically involves peripheral lesions near the pleura, which are well demonstrated on lung ultrasound. Herein we present a case of SARS-CoV-2 related multifocal pneumonia diagnosed by POCUS in the ED during the initial triage of a return ED visit, which highlights its clinical utility and our proposed imaging pathway for evaluating patients with acute dyspnea during the current SARS-CoV-2 outbreak.

## CASE REPORT

A 56-year-old female with a past medical history of asthma and dyslipidemia presented to a community ED with one week of fever, non-productive cough, dyspnea, headache, nausea and vomiting. She denied smoking history or drug use. Travel history was significant for returning home from an amusement park in Los Angeles one week prior to onset of symptoms. Vital signs at triage were temperature (oral) 38.6° Celsius; heart rate 117 beats per minute; respiratory rate 20 breaths per minute; and pulse oximetry 93% on room air.

### Clinical Course on First Emergency Department Visit

Significant laboratory results were as follows: rapid influenza diagnostic test was negative; white blood cells 11.7 10*3 per microliter (mcL) (reference range 4.5-11.5 10*3/mcL), neutrophils relative 92% (reference 50-70%), lymphocyte absolute 0.55 10*3/mcL (reference 0.8-4.80 10*3 /mcL), and lactic acid was 1.0 millimoles per L (reference 0.5-2.2 mmol). A two-view chest radiograph (CXR) was interpreted by the radiologist as pneumonia of the left lower lobe with interstitial changes (Image 1). After symptomatic therapy and a first dose of azithromycin, the patient was discharged home with instructions to continue antibiotic therapy and return for worsening symptoms.

### Clinical Course Second Emergency Department Visit

Approximately 12 hours after discharge the patient returned to the same ED with worsening dyspnea. Upon arrival she was noted to be ill appearing, tachypneic and with moderate respiratory distress despite similar triage vital signs as the initial ED visit. Her lung exam was significant for poor inspiratory effort and rhonchi at the bases. A multi-organ POCUS exam was performed to determine the cause of the patient's dyspnea.

A cardiac parasternal long-axis view demonstrated normal systolic ejection fraction and no pericardial effusion (Image 2). The IVC in the subxiphoid view showed greater than 50% collapse during inspiration (Image 3). A lung exam using a low frequency (5-2 megahertz) curvilinear transducer in the anterior, lateral, and posterior portions, showed the presence of diffuse scattered B-lines with small subpleural consolidations and effusions in each lung zone, with confluent B-lines in the posterior inferior lobes bilaterally (Image 4). POCUS findings were interpreted as the presence of a non-cardiogenic multifocal interstitial lung process with COVID-19 being high on the differential. The patient was placed in a negative pressure room, and all staff were informed to wear full personal protective equipment when interacting with the patient.

## CPC-EM CAPSULE

**What do we already know about this clinical entity?**

*The virus severe acute respiratory syndrome coronavirus 2 can cause severe pulmonary infection and inflammatory response in patients presenting during the coronavirus disease 2019 (COVID-19) pandemic.*

**What makes this presentation of disease reportable?**

*This case highlights the rapid progression of COVID-19 pneumonia and the utility of point-of-care-ultrasound (POCUS) in excluding alternative causes of dyspnea.*

**What is the major learning point?**

*Multiorgan-POCUS is useful for ED evaluation of dyspnea during the COVID-19 pandemic due to the peripheral nature of lung involvement.*

**How might this improve emergency medicine practice?**

*Multiorgan-POCUS has the potential to reduce diagnostic uncertainty in dyspneic patients and help limit use of other imaging modalities.*

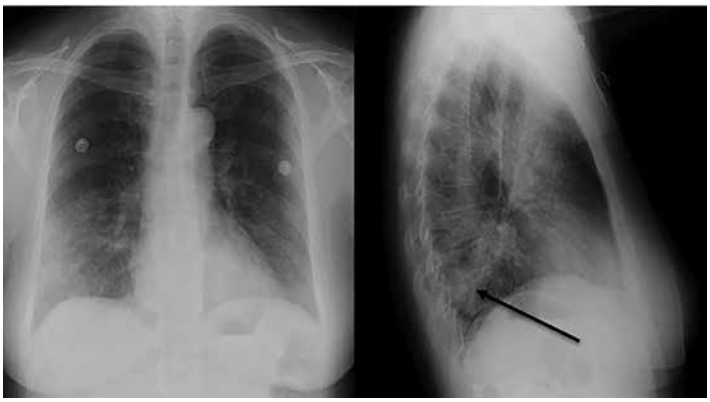

**Image 1.** Chest radiographs of the initial emergency department visit. Patient was dyspneic at the time. A) Posterior-anterior view demonstrating prominent interstitial markings in the mid and lower lung field bilaterally; and B) Lateral view with apparent area of retrocardiac opacity (arrow) likely representing an early consolidation in the left lateral lobe.

Based on the POCUS multi-organ findings, the patient was resuscitated with an intravenous bolus normal saline and treated with broad-spectrum antibiotics (levofloxacin). SARS-CoV-2 oropharyngeal and nasopharyngeal swabs were sent from the ED for testing. The infectious disease consultant agreed with a plan for admission and continuation of droplet, airborne, and contact precautions given the progression of symptoms and worsening respiratory status. She was admitted to a negative pressure room on the medical floor for continued therapy and monitoring of respiratory status. An eventual non-contrast CT of the chest demonstrated diffuse multifocal infiltrates (Image 5).

As an inpatient, the patient's antibiotic regimen was adjusted to doxycycline and cefepime. She was under observation and isolation for six days at the hospital of presentation. At this point the SARS-CoV-2

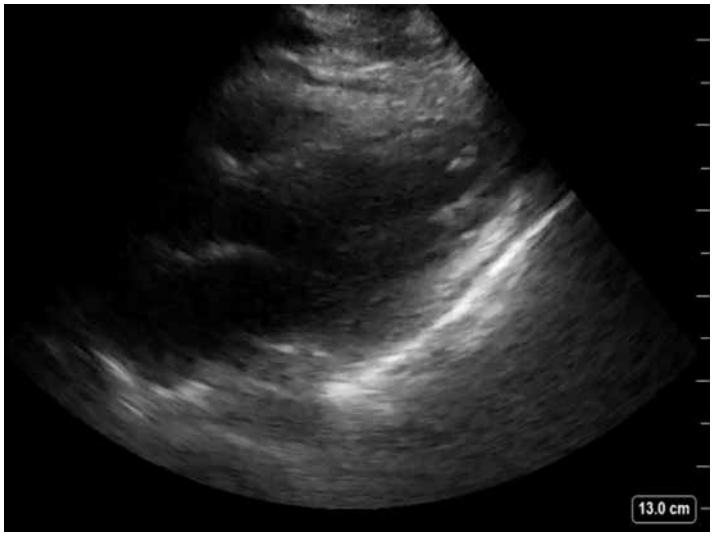


**Image 2.** Normal systolic ejection fraction determined by parasternal long-axis view. Image acquisition via Sonosite X-Porte system using phased array probe.


**Image 3.** The inferior vena cava (arrow) was determined to be non-plethoric and collapsible with respiration. In this image, the inferior vena cava is surrounded by the liver (stars). Image acquisition via Sonosite X-Porte system using phased array probe.

testing had not yet resulted, but her clinical course had improved. She was discharged home with instructions to self-quarantine at home or return to the ED if symptoms worsened. SARS-CoV-2 testing resulted the day after discharge as positive for SARS-CoV-2 ribonucleic acid.

## DISCUSSION

During the current SARS-CoV-2 pandemic, prompt evaluation of patients in the ED presenting with acute dyspnea is imperative. Diagnostic testing of SARS-CoV-2 has been limited to date, and in our setting will not result during a typical ED visit. Likewise, serum laboratory markers for both SARS-CoV-2 associated pneumonia and non-SARS-CoV-2 causes of acute dyspnea (decompensated heart failure, chronic obstructive pulmonary disease/asthma, pulmonary embolism) are non-specific, are also not immediately resulted, and are of limited value during the initial hospital presentation.

The role of imaging during the SARS-CoV-2 outbreak is still being established. A study of patients diagnosed with COVID-19 in Wuhan, China, demonstrated a progression of disease by CT imaging from early subclinical/asymptomatic patients with unilateral and multifocal ground-glass opacities to patients with less than one week of symptoms showing bilateral disease and transition to consolidation

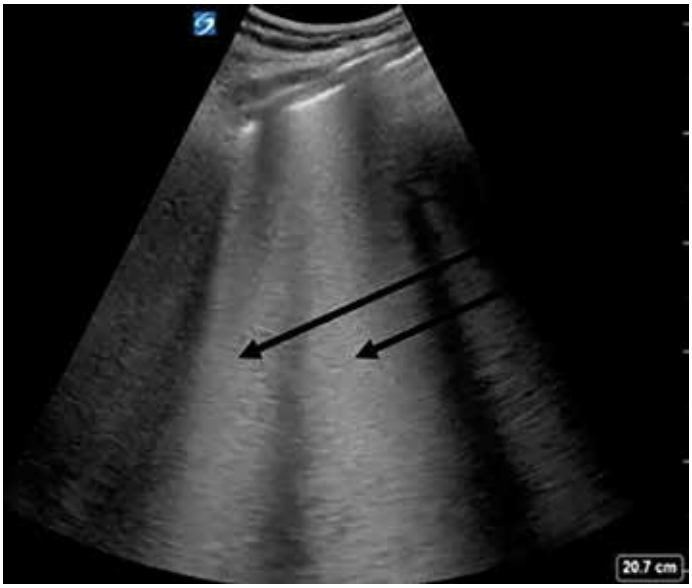


**Image 4.** Confluent B-lines were seen in all lung fields with increased density in the posterior lateral sections. The arrows denote B-lines that were interpreted as pulmonary infiltrates due to depth and confluence.
Image acquisition via Sonosite X-Porte system using curvilinear probe.

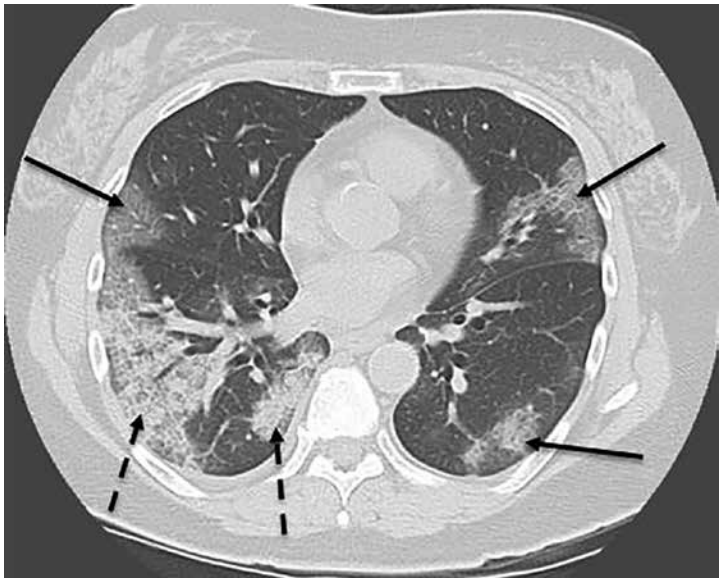

**Image 5.** Computed tomography of the chest without contrast in an axial cut showing diffuse multifocal infiltrates (solid arrows) with areas of consolidation and increased infiltrates in the posterior segments (dashed arrows).

and interstitial changes.[6] However, the American College of Radiology recently issued guidance that CT should not be used as a first-line test to diagnose acute SARS-CoV-2 infection, and that limiting the use of portable radiography should be attempted to reduce transmission.[7]

POCUS holds some distinct advantages over other imaging modalities especially in times of disaster or pandemic. The characteristic ultrasonographic findings of interstitial pneumonia near the pleura are accessible, rapidly attained and reliable markers of pathology. Lung ultrasound has been shown to be more sensitive than CXR for pneumonia and pulmonary edema.[8,9] In our anecdotal experience, ultrasonographic features of COVID-19 may be detectable earlier or more reliably than on CXR. Additionally, while assessing for findings of interstitial pneumonia, basic cardiac and IVC imaging is easily obtainable and can offer information in regard to the presence of an alternative pathology and guide resuscitation.

While the majority of patients infected with SARS-CoV-2 will experience only mild illness, a subset will progress to multifocal pneumonia, acute respiratory distress syndrome, and cardiomyopathy[10–12] pathologies that can be identified rapidly with POCUS.[8,9,13–15]

## CONCLUSION

The above case highlights the utility of a multiorgan approach in the evaluation of the acutely dyspneic patient during the SARS-CoV-2 pandemic. Along with lung ultrasound findings that have been described in China and Italy, we believe that the evaluation of the heart and IVC are easily obtained and extremely useful for two important reasons. First, this approach allows to rapidly determine other common causes of dyspnea in the undifferentiated patient. Second, with a more protocolized pathway on early presentation, we hope to reduce the reliance on other imaging modalities (chest radiographs and CT) in a time when infection control is imperative. In our experience, a multi-organ ultrasound first approach for all severely dyspneic patients is an ideal approach during the global SARS-CoV-2 pandemic and especially as healthcare resources become increasingly strained.

The authors attest that their institution requires neither Institutional Review Board approval, nor patient consent for publication of this case report. Documentation on file.

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## REFERENCES

1. Lichtenstein DA and Mezière GA. Relevance of lung ultrasound in the diagnosis of acute respiratory failure: the BLUE protocol. *Chest* 2008;134(1):117-25.
2. Mantuani D, Nagdev A, Stone M. Three-view bedside ultrasound for the differentiation of acute respiratory distress syndrome from cardiogenic pulmonary edema. *Am. J. Emerg. Med.* 2012;30(7):1324.e1-4.
3. Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet* 2020;395(10229):1054-62.
4. Peng QY, Wang XT, Zhang LN, et al. (Ahead of Print). Findings of lung ultrasonography of novel corona virus pneumonia during the 2019-2020 epidemic. *Intensive Care Med.* March 12, 2020.
5. Huang Y, Wang S, Liu Y, et al. [Ahead of Print]. A preliminary study on the ultrasonic manifestations of peripulmonary lesions of non-critical novel coronavirus pneumonia (COVID-19). *SSRN Journal.* February 28, 2020.
6. Shi H, Han X, Jiang N, et al. [Ahead of Print]. Radiological findings from 81 patients with COVID-19 pneumonia in Wuhan, China: a descriptive study. *Lancet Infect.* Dis. February 24, 2020.
7. American College of Radiology. 2020. ACR recommendations for the use of chest radiography and computed tomography (CT) for suspected COVID-19 infection | American College of Radiology. Available at: https://www.acr.org/Advocacy-and-Economics/ACR-Position-Statements/Recommendations-for-Chest-Radiography-and-CT-for-Suspected-COVID19-Infection. Accessed March 25, 2020.
8. Liu X, Lian R, Tao Y, et al. Lung ultrasonography: an effective way to diagnose community-acquired pneumonia. *Emerg Med. J.* 2015;32(6):433-8.
9. Pivetta E, Goffi A, Lupia E, et al. Lung ultrasound-implemented diagnosis of acute decompensated heart failure in the ED: A SIMEU Multicenter Study. *Chest* 2015;148(1):202-10.
10. Yang X, Yu Y, Xu J, et al. [Ahead of Print]. Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study. *Lancet Respir. Med.* Febraury 24, 2020.
11. Wang D, Hu B, Hu C, et al. [Ahead of Print]. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in Wuhan, China. *JAMA.* February 7, 2020.
12. Guo T, Fan Y, Chen M, et al. [Ahead of Print]. Cardiovascular implications of fatal outcomes of patients with coronavirus disease 2019 (COVID-19). *JAMA Cardiol.* March 27, 2020.
13. Moore CL, Rose GA, Tayal VS, et al. Determination of left ventricular function by emergency physician echocardiography of hypotensive patients. *Acad Emerg Med.* 2002;9(3):186-93.
14. Lichtenstein D, Goldstein I, Mourgeon E, et al. Comparative diagnostic performances of auscultation, chest radiography, and lung ultrasonography in acute respiratory distress syndrome. *Anesthesiology* 2004;100(1):9-15.
15. Al Deeb M, Barbic S, Featherstone R, et al. Point-of-care ultrasonography for the diagnosis of acute cardiogenic pulmonary edema in patients presenting with acute dyspnea: a systematic review and meta-analysis. *Acad. Emerg. Med.* 2014;21(8):843-52.

EXPERT COMMENTARY |

# Management of Agitation During the COVID-19 PANDEMIC


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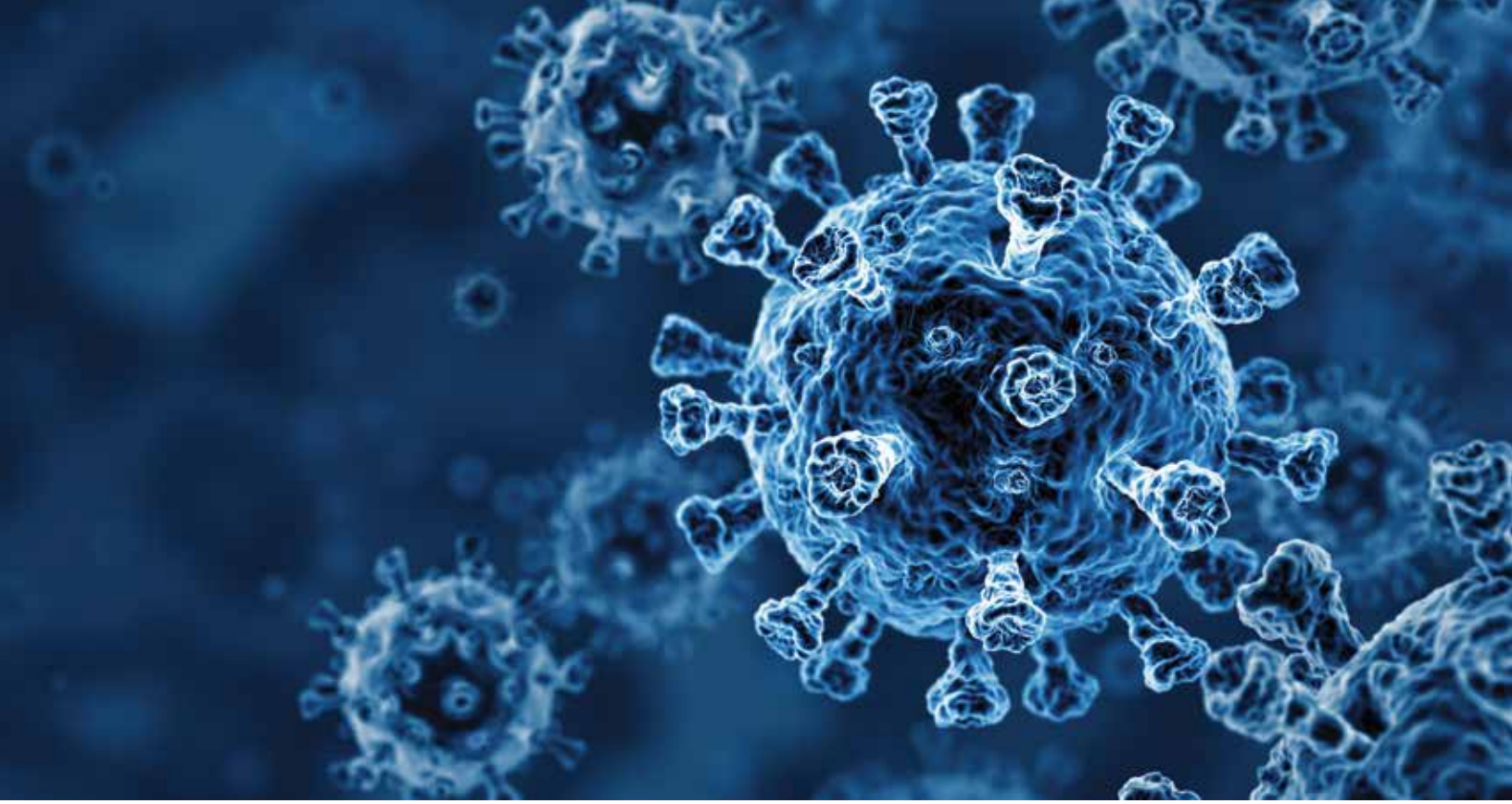
The coronavirus disease 2019 (COVID-19) pandemic caused by the coronavirus SARS-CoV-2 has radically altered delivery of care in emergency settings. Unprecedented hardship due to ongoing fears of exposure and threats to personal safety, along with societal measures enacted to curb disease transmission, have had broad psychosocial impact on patients and healthcare workers alike. These changes can significantly affect diagnosing and managing behavioral emergencies such as agitation in the emergency department. On behalf of the American Association for Emergency Psychiatry, we highlight unique considerations for patients with severe behavioral symptoms and staff members managing symptoms of agitation during COVID-19. Early detection and treatment of agitation, precautions to minimize staff hazards, coordination with security personnel and psychiatric services, and avoidance of coercive strategies that cause respiratory depression will help mitigate heightened risks to safety caused by this outbreak. [West J Emerg Med. 2020;21(4)X–X.]



***Disclaimer:*** *Due to the rapidly evolving nature of this outbreak, and in the interests of rapid dissemination of reliable, actionable information, this paper went through expedited peer review. Additionally, information should be considered current only at the time of publication and may evolve as the science develops.*

## INTRODUCTION

The World Health Organization declared the novel coronavirus disease 2019 (COVID-19) as a pandemic in March 2020, with rising infection rates around the world and within the United States.[1] This outbreak has radically altered delivery of care in emergency departments (ED), as efforts continue to prevent transmission and combat the disease.[2] Although attention has appropriately been focused on clinical management and emergency preparedness during COVID-19, this historic event has also had significant consequences for mental health that may be easily overlooked. Unprecedented hardship due to ongoing fears of exposure, threats to personal safety, and limited access to resources have broad psychosocial impact on patients and healthcare workers alike.[3] These changes can significantly affect how individuals with behavioral symptoms may present and what management strategies are most appropriate during the care of behavioral emergencies.

Agitation is one of the most common behavioral emergencies in the ED, with 1.7 million episodes[4] annually in emergency settings and a recent estimated overall ED prevalence of 2.6%.[5] Agitated patients are among the most challenging to evaluate and manage by emergency physicians, as their excessive psychomotor activity can escalate quickly into violent acts and physically aggressive behavior.[6] Nationwide, 78% of emergency physicians reported being targets of workplace violence in the previous 12 months.[7] In 2012, the American Association for Emergency Psychiatry (AAEP) published Project BETA (Best practices in Evaluation and Treatment of Agitation), consisting of a landmark series of consensus guidelines to provide effective and safety-minded strategies for agitation management with the best interests of the patient in mind while ensuring the safety of healthcare workers.[4] The Project BETA guidelines focus on a noncoercive approach to manage these patients with an emphasis on de-escalation, safety and risk assessment, and addressing potentially life-threatening medical concerns.[8,9] Forced medication and physical restraint are reserved as the last resort to control agitation symptoms, given that their use is associated with elevated risk for both patients and staff.[10]

The management principles encapsulated within Project BETA remain applicable in the COVID-19 era, but adaptations are needed in light of the unique circumstances and environmental conditions due to the pandemic. Given the possibility of a projected lengthy timeline before this outbreak abates,[11] awareness of its effects on the management of agitation is needed now to ensure safety of both patients with behavioral symptoms and frontline healthcare workers caring for them. On behalf of AAEP, we aim to highlight in this work some important unique considerations for the management of agitation in the ED during COVID-19 (Table 1).

**TABLE 1. SUMMARY OF COVID-19 EFFECTS.**

| | |
|---|---|
| **Effects on visits and presentations** | |
| Psychosocial factors | • Increase in stress/anxiety symptoms exacerbated by digital media<br>• Public lockdown increases tensions between individuals in constant close proximity at home & disrupts healthy coping mechanisms<br>• Stress/anxiety due to banning of visitors and fear of COVID-19 exposure when in the hospital<br>• Extra vigilance regarding potential weapons on patients given increase in firearm purchases |
| Access to services | • Patients are likely socioeconomically disadvantaged and suffer more during COVID-19<br>• Limited access to their prescribed psychiatric/substance use disorder medications<br>• Challenges accessing social services, detox centers, homeless shelters |
| Clinical presentations | • Individuals with milder symptoms may refrain from coming to ED<br>• Patients may be in more severe forms of agitation and delirium<br>• Possible COVID-19 encephalopathy and delirium syndromes<br>• Fears regarding the pandemic may incorporate/feed into delusional content |
| **Effects on care delivery** | |
| Individual staff factors | • Staff stress/anxiety levels are high during COVID-19<br>• Risk to personal safety is elevated from viral transmission and may be compounded during episodes of physical violence<br>• Maneuvering, spatial orientation, awareness of safety, establishing rapport, attempting de-escalation can be limited by being in PPE |
| Clinical resource limitations | • Ancillary services (chaplain, social work) and psychiatric consultation (deployed elsewhere) may be limited during COVID-19<br>• Medications may be on limited supply due to increased need in ICUs (eg, sedatives)<br>• Lower staffing and slower responses from security personnel due to lower clinical volumes and need to conserve PPE |
| **Evaluation and management recommendations to reduce/address agitation** | |
| Evaluation | • Obtain collateral information early<br>• Perform components of the physical exam from a distance if accurate and feasible<br>• Don appropriate PPE and minimize number of staff in direct contact with patient<br>• Consider judicious use of diagnostic studies<br>• Lower threshold for COVID-19 testing before definitive psychiatric evaluation |
| Management | • Pre-emptive action and extra vigilance to detect and treat early signs of agitation and escalating behavior<br>• Prompt and careful coordination with security personnel and psychiatric services<br>• Budget extra time and effort for de-escalation and non-coercive strategies<br>• Treat underlying cause or precipitants of delirium<br>• Caution with sedatives (especially benzodiazepines) and physical restraints for COVID-19+ patients |

*ED*, emergency department; *PPE*, personal protective equipment; *ICU*, intensive care unit.

## COVID-19 EFFECTS ON PATIENT VISITS AND PRESENTATIONS

### PSYCHOSOCIAL FACTORS

The COVID-19 pandemic is occurring during a time of unprecedented digital interconnectedness.[12] Advancements in digital platforms and intense media coverage have amplified the intensity of associated psychological fear, creating a novel "digital pandemic" that significantly exacerbates symptoms of anxiety and stress.[13] The large-scale public lockdown efforts to implement social distancing has secondarily forced many individuals to stay indoors for prolonged periods of time, increasing the risk of social isolation, tensions within the home, and disruption of positive adaptive behaviors to relieve symptoms of mental illness.[14] In addition, COVID-19 may directly affect workflow and slow down assessments in the ED, leading to escalation of agitation symptoms for those who require immediate attention.

Hospital visitor restrictions reduce risk of transmission[15] but also remove vital links of social and family support for individuals during times of crisis. Since asymptomatic carriers can silently transmit the virus,[16] some patients are fearful that they may unknowingly contract COVID-19 during their time in the ED. Others with symptoms concerning for COVID-19 may escalate their behavior if their expectations for testing

or disposition are not met due to limited capacity for EDs to widely test or hospitalize members of the community they serve.[17] These added pressures can increase the risk of agitation even for visits that may not be associated with a behavioral chief complaint. With reports of recent surges in firearm sales across the US,[18] extra vigilance is needed regarding potential dangers due to weapons both in the healthcare setting and at home, especially for patients with elevated risk of self-harm or violence.[19]

### ACCESS TO SERVICES

Patients presenting with agitation often represent socioeconomically disadvantaged populations with significant health disparities.[20] Unfortunately, individuals with homelessness, mental illness, and substance use disorders face additional potential problems with screening, quarantine, and symptom treatment during pandemics.[21] Preliminary data demonstrating associations between mortality and challenges in accessing healthcare resources have already surfaced during COVID-19.[22] Economic hardship and disruption of outpatient mental health services may limit the ability for these individuals to refill their maintenance medications for psychiatric and/or substance use conditions, causing exacerbation or decompensation of their illnesses. This is compounded by closure of shelters, detoxification units, and other high-density communal settings (eg, drop-in centers and soup kitchens) which may reduce their access to critical social services and increase their likelihood to present to the ED in need. As the support systems and outpatient services deteriorate for these patients, the likelihood that they develop decompensation of their underlying mental illness may increase, leading to ED visits and agitated behaviors during their stay.

### CLINICAL PRESENTATIONS

Although it may seem that increased stress and anxiety would inherently increase the volume of behavioral visits during natural disasters and pandemics, experiences from past events have demonstrated that the effects are quite complex and even counterintuitive.[23] Total mental health-related visits may actually initially decrease as individuals focus on immediate survival and self-protection,[24] but those who do seek care appear to have more severe symptoms.[25] For example, inpatient psychiatric admissions fell by 20% for the first 30 days following the devastating earthquake in Christchurch, New Zealand.[26] New psychiatric presentations following the 2011 Fukushima nuclear plant disaster also decreased, but those admitted had high rates of confusional, manic, and delirious states.[27] Given the public perceptions of fear and mistrust around the government's response to the pandemic,[28] individuals with chronic psychotic disorders may incorporate those perceptions into their delusional content and manifest as themes of contamination, persecution, and conspiracy theories. Particular sensitivity and extra efforts to counteract and redirect these sentiments may be needed as part of the management of agitation.

In addition, there are increasing reports of neuropsychiatric symptoms due to COVID-19. Several case reports have documented encephalopathy and delirium as the presenting syndrome for the disease rather than the more common respiratory or gastrointestinal complaints.[29,30] The Centers for Disease Control and Prevention also found that 6% of hospitalized patients with confirmed COVID-19 had associated symptoms of altered mental status and confusion.[31] Elderly patients are at the highest risk for morbidity and mortality related to the disease.[32] Acute agitation in patients with delirium caused by hypoxia, a prominent clinical feature of patients infected with COVID-19, complicates the presentation of dementia and psychiatric illness, particularly in the older population.[33] Given the elevated rates of clinical and adverse events associated with delirium and the various neuropsychiatric symptoms that may be associated with COVID-19,[34] emergency physicians need to be mindful of these potential complications when evaluating these patients. A thorough mental status exam[35] will also help clinicians evaluate the diverse etiologies of any acute behavioral presentation that may be present in this cohort of patients.

## COVID-19 EFFECTS ON CARE DELIVERY

### INDIVIDUAL STAFF FACTORS

COVID-19 has taken its toll on healthcare workers amidst multiple additional stressors imposed upon them.[36] These include rapid changes in clinical roles and responsibilities, extra workload, disrupted supplies in personal protective equipment (PPE), rationing of resources, and valid fears regarding potential exposure to the disease.[3] In particular, those on the front lines in the ED may have increased feelings of anxiety, frustration, and resentment due to these added stressors in a dynamic and high-stress clinical environment.[37] Given that de-escalation requires clinicians to remain calm and compassionate despite displays of aggression or violence, these negative emotions due to COVID-19 can significantly undermine efforts to use patient-centered approaches during management of agitation.[38]

As emergency healthcare workers care for rising volumes of infected patients presenting in extremis, they work at an elevated risk to personal safety from potential occupational exposure to COVID-19.[39,40] This risk increases further during episodes of patient agitation. Clinicians may come into close physical contact with COVID-19 positive patients to de-escalate, provide physical control of disruptive behavior, and perform diagnostic and therapeutic procedures. As a result, professional societies recommend that emergency clinicians continuously wear PPE during their entire shift in the ED. They also note that close contact during procedures or processes, including a physical

examination, can generate potentially infectious aerosols and requires a higher level of PPE that includes an N95 respirator.[41] However, use of PPE may compromise the emergency clinician's spatial orientation, maneuverability, and awareness of personal safety, which are all vital skills to safely evaluate and manage the agitated patient.[42,43] PPE also adds physical limitations to recognizing facial features and body language, removing key aspects of nonverbal communication that support successful de-escalation and rapport with agitated patients.

### CLINICAL RESOURCE LIMITATIONS

In some geographic areas, EDs are overwhelmed by the volume of COVID-19 infected patients combined with critical shortages of supplies, staffing, and physical space.[44] Other EDs anecdotally report lower census levels, likely due to a combination of fewer accidental injuries during public lockdown efforts and ED avoidance behaviors by patients fearing exposure to the virus. As a result, staffing models have either decreased or adjusted to focus attention on the surges of COVID-19 cases[45] and there may be fewer staff available to handle agitated patients in many EDs. In addition, security personnel may have extra responsibilities related to COVID-19 (eg, visitor restrictions, minimizing traffic), impacting the ability for rapid and timely responses to episodes of agitation in the ED. Requirements to ration use of PPE[46] may further limit the time, attention, and resources normally needed to safely respond to agitation. The increased number of COVID-19 patients with critical care needs has disrupted and limited supplies of sedative medications in the ED.[47] Ancillary services and psychiatric consultation are also less readily available as they are either furloughed to minimize exposure or deployed to other clinical units with more urgent needs related to the pandemic.[17] Clinicians need to pre-emptively consider these limitations when managing patients at risk for agitation before behavior escalates and resources are needed rapidly.

## EVALUATION AND MANAGEMENT RECOMMENDATIONS

In a healthcare system that is already taxed with additional stressors on multiple levels, these factors unique to the COVID-19 era discussed above need to be taken into consideration to mitigate escalation to violent behavior and address potential threats to safety associated with agitation. In light of this elevated occupational hazard, extra measures are needed to continually protect the safety of ED personnel and effectively combat an anticipated lengthy battle with this pandemic, regardless of the clinical concerns or level of agitation.[48] We highlight specific recommendations on the evaluation and management of the agitated patient in the setting of COVID-19.

The medical and psychiatric evaluation should proceed in a manner that minimizes COVID-19 exposure risk while effectively detecting dangerous and reversible causes of agitation. Collateral information should be obtained early to counteract limitations of history taking due to social distancing and PPE requirements. The Joint Statement for Care of Patients with Behavioral Health Emergencies and Suspected or Confirmed COVID-19 supports the use of telehealth for screening,[49] which may not be applicable in every situation but can significantly reduce exposure. If direct contact is required, donning of appropriate PPE, limiting the amount of time clinicians are less than six feet away from the patient, and minimizing the number of staff members at the bedside will reduce any exposure risk.[3] The virus has been detected in the saliva of infected patients,[50,51] and precautions must be taken to minimize aerosol and droplet exposure, which may be magnified in those agitated patients who present with pressured speech or spit at ED personnel.[52] Judicious use and careful consideration of the utility in diagnostic studies are needed to safely evaluate for potentially life-threatening causes of the patient's agitation. Finally, given known asymptomatic transmission of COVID-19,[53] there should be a lower threshold to test these patients for the presence of the virus before admission for medical causes of their agitation or transferring them to definitive psychiatric care.

Project BETA strongly encourages early de-escalation, which combines targeted verbal and nonverbal strategies to assist the patient with calming down and reducing aggressive behavior.[8] In light of COVID-19, extra vigilance and early pre-emptive action are needed to detect and treat any signs of agitation, including use of objective scales to assess the level of agitation and prompt de-escalation by qualified ED personnel. Extra investment in time and effort to develop a therapeutic relationship and establish trust may be needed to overcome additional patient stressors and physical barriers to create rapport. Clinical personnel should communicate early with hospital security if there is any concern about escalation or violent behaviors to allow for lengthier response times and higher potential for escalation, even in milder forms of agitation. Care coordination with psychiatric services is critical in light of limitations to outpatient mental health and social services.

Patients who are delirious and acutely agitated with concomitant COVID-19 infection deserve special attention given elevated patient risks associated with the viral illness. Unfortunately, the ability to implement non-coercive techniques[10] and reorientation strategies[54] in treatment of agitation and delirium is compromised by social distancing and isolation measures to minimize COVID-19 spread. Patients who experience persistent and severe agitation or delirium despite de-escalation and attempts to treat underlying causes or precipitants may require physical restraint and use of sedative medication therapy. It is possible that the threshold to use pharmacotherapy may be lower during this pandemic given the elevated risk to both patients and staff

caring for them. Low doses of first-generation antipsychotics such as haloperidol or second-generation antipsychotics such as olanzapine and risperidone have been found to be equally effective in patients with delirium, but have differing onset and side-effect profiles.[55] Extrapyramidal symptoms are most common with haloperidol, and sedation occurs most frequently with olanzapine.[56] Adverse events associated with restraints and sedatives, including apnea and respiratory depression, will be significantly more dangerous in light of discordance between clinical and imaging evidence for degree of pulmonary involvement, rapid deterioration in the clinical course, and profound hypoxia associated with COVID-19.[57] If these pharmacologic measures are required, the patient should be closely monitored with frequent vital signs and continuous cardiac, pulse oximetry, and capnometry monitoring.

## CONCLUSION

The COVID-19 pandemic has created unique stressors that may contribute to agitation symptoms. It has also increased personal risks for healthcare staff working in the ED, while adding new limitations to appropriately and effectively manage agitation due to measures needed to combat viral transmission. Extra measures for early detection, treatment of underlying causes for agitation, precautions to minimize staff hazards, coordination with security and psychiatric services, and avoidance of coercive strategies that cause respiratory depression will help mitigate heightened risks to safety caused by this outbreak.

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## REFERENCES

1. Gates B. Responding to Covid-19 - A once-in-a-century pandemic? *N Engl J Med.* 2020. In press.
2. Yee J, Unger L, Zadravecz F, et al. Novel coronavirus 2019 (COVID-19): emergence and implications for emergency care. *JACEP Open*. 2020.
3. Adams JG, Walls RM. Supporting the health care workforce during the COVID-19 global epidemic. *JAMA*. 2020. In press.
4. Holloman GH, Jr., Zeller SL. Overview of Project BETA: Best practices in Evaluation and Treatment of Agitation. *West J Emerg Med*. 2012;13:1-2.
5. Miner JR, Klein LR, Cole JB, Driver BE, Moore JC, Ho JD. The characteristics and prevalence of agitation in an urban county emergency department. *Ann Emerg Med*. 2018;72:361-70.
6. Stowell KR, Hughes NP, Rozel JS. Violence in the emergency department. *Psychiatr Clin North Am*. 2016;39:557-66.
7. Kowalenko T, Gates D, Gillespie GL, Succop P, Mentzel TK. Prospective study of violence against ED workers. *Am J Emerg Med*. 2013;31:197-205.
8. Richmond JS, Berlin JS, Fishkind AB, et al. Verbal de-escalation of the agitated patient: consensus statement of the American Association for Emergency Psychiatry Project BETA De-escalation Workgroup. *West J Emerg Med*. 2012;13:17-25.
9. Nordstrom K, Zun LS, Wilson MP, et al. Medical evaluation and triage of the agitated patient: consensus statement of the American Association for Emergency Psychiatry Project Beta Medical Evaluation Workgroup. *West J Emerg Med*. 2012;13:3-10.
10. Knox DK, Holloman GH, Jr. Use and avoidance of seclusion and restraint: consensus statement of the American Association for Emergency Psychiatry Project BETA Seclusion and Restraint Workgroup. *West J Emerg Med*. 2012;13:35-40.
11. Anderson RM, Heesterbeek H, Klinkenberg D, Hollingsworth TD. How will country-based mitigation measures influence the course of the COVID-19 epidemic? *Lancet.* 2020;395:931-4.
12. Ting DSW, Carin L, Dzau V, Wong TY. Digital technology and COVID-19. *Nat Med.* 2020;26:459-61.
13. Chiolero A. Covid-19: a digital epidemic. *BMJ.* 2020;368:m764.
14. Horesh D, Brown AD. Traumatic stress in the age of COVID-19: a call to close critical gaps and adapt to new realities. *Psychol Trauma.* 2020;12:331-5.
15. Wilder-Smith A, Chiew CJ, Lee VJ. Can we contain the COVID-19 outbreak with the same measures as for SARS? *Lancet Infect Dis.* 2020. In press.
16. Bai Y, Yao L, Wei T, et al. Presumed asymptomatic carrier transmission of COVID-19. *JAMA.* 2020. In press.
17. Emanuel EJ, Persad G, Upshur R, et al. Fair allocation of scarce medical resources in the time of Covid-19. *N Engl J Med*. 2020. In press.
18. Mannix R, Lee LK, Fleegler EW. Coronavirus Disease 2019 (COVID-19) and firearms in the United States: Will an epidemic of suicide follow? *Ann Intern Med.* 2020. In press.
19. Reger MA, Stanley IH, Joiner TE. Suicide mortality and coronavirus disease 2019: a perfect storm? *JAMA Psychiatry.* 2020. In press.

20. Wong AH, Ray JM, Rosenberg A, et al. Experiences of individuals who were physically restrained in the emergency department. *JAMA Netw Open.* 2020;3:e1919381.

21. Tsai J, Wilson M. COVID-19: a potential public health problem for homeless populations. *Lancet Public Health.* 2020;5:e186-e7.

22. Ji Y, Ma Z, Peppelenbosch MP, Pan Q. Potential association between COVID-19 mortality and health-care resource availability. *Lancet Glob Health.* 2020;8:e480.

23. Haker H, Lauber C, Malti T, Rossler W. Is there an impact of global and local disasters on psychiatric inpatient admissions? *Eur Arch Psychiatry Clin Neurosci.* 2004;254:330-4.

24. McFarlane AC, Van Hoof M. The counterintuitive effect of a disaster: the need for a long-term perspective. *Aust N Z J Psychiatry.* 2015;49:313-4.

25. Yun K, Lurie N, Hyde PS. Moving mental health into the disaster-preparedness spotlight. *N Engl J Med.* 2010;363:1193-5.

26. Beaglehole B, Bell C, Beveridge J, Frampton C. Psychiatric admissions fall following the Christchurch earthquakes: an audit of inpatient data. *Aust N Z J Psychiatry.* 2015;49:346-50.

27. Hisamura M, Hori A, Wada A, et al. Newly admitted psychiatric inpatients after the 3.11 disaster in Fukushima, Japan. *Open J Psychiatry.* 2017;07:131-46.

28. Ho CS, Chee CY, Ho RC. Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. *Ann Acad Med Singapore.* 2020;49:155-60.

29. Filatov A, Sharma P, Hindi F, Espinosa PS. Neurological complications of coronavirus disease (COVID-19): encephalopathy. *Cureus.* 2020. In press.

30. Poyiadji N, Shahin G, Noujaim D, Stone M, Patel S, Griffith B. COVID-19-associated acute hemorrhagic necrotizing encephalopathy: CT and MRI reatures. *Radiology.* 2020:201187.

31. Garg S, Kim L, Whitaker M, et al. Hospitalization rates and characteristics of patients hospitalized with laboratory-confirmed coronavirus disease 2019 — COVID-NET, 14 states, March 1–30, 2020. *MMWR Morb Mortal Wkly Rep.* 2020;69:458-64.

32. Lloyd-Sherlock P, Ebrahim S, Geffen L, McKee M. Bearing the brunt of Covid-19: older people in low and middle income countries. *BMJ.* 2020;368:m1052.

33. Wang H, Li T, Barbarino P, et al. Dementia care during COVID-19. *Lancet.* 2020;395:1190-1.

34. Troyer EA, Kohn JN, Hong S. Are we facing a crashing wave of neuropsychiatric sequelae of COVID-19? Neuropsychiatric symptoms and potential immunologic mechanisms. *Brain Behav Immun.* 2020. In press.

35. Wilson MP, Nordstrom K, Anderson EL, et al. American Association for Emergency Psychiatry Task Force on Medical Clearance of Adult Psychiatric Patients. Part II: controversies over medical assessment, and consensus recommendations. *West J Emerg Med.* 2017;18:640-6.

36. Ripp J, Peccoralo L, Charney D. Attending to the emotional well-being of the health care workforce in a New York City health system during the COVID-19 pandemic. *Acad Med.* 2020. In press.

37. Gautam M, Kaur M, Mahr G. COVID-19 associated psychiatric symptoms in healthcare workers: viewpoint from internal medicine and psychiatry residents. *Psychosomatics.* 2020. In press.

38. Isbell LM, Boudreaux ED, Chimowitz H, Liu G, Cyr E, Kimball E. What do emergency department physicians and nurses feel? A qualitative study of emotions, triggers, regulation strategies, and effects on patient care. *BMJ Qual Saf.* 2020. In press.

39. Tsai C. Personal risk and societal obligation amidst COVID-19. *JAMA*. 2020. In press.

40. Iserson KV. Healthcare ethics during a pandemic. *West J Emerg Med.* 2020. In press.

41. Holland M, Zaloga DJ, Friderici CS. COVID-19 Personal protective equipment (PPE) for the emergency physician. *Vis J Emerg Med.* 2020;19:100740.

42. Arbury S, Hodgson M, Zankowski D, Lipscomb J. Workplace violence training programs for health care workers: an analysis of program elements. *Workplace Health Saf.* 2017;65:266-72.

43. Price O, Baker J. Key components of de-escalation techniques: a thematic synthesis. *Int J Ment Health Nurs.* 2012;21:310-9.

44. Mareiniss DP. The impending storm: COVID-19, pandemics and our overwhelmed emergency departments. *Am J Emerg Med.* 2020. In press.

45. Miller GA, Buck CR, Kang CS, et al. COVID-19 in Seattle: early lessons learned. *JACEP Open.* 2020. In press.

46. Livingston E, Desai A, Berkwits M. Sourcing personal protective equipment during the COVID-19 pandemic. *JAMA*. 2020. In press.

47. Alexander GC, Qato DM. Ensuring access to medications in the US during the COVID-19 pandemic. *JAMA*. 2020. In press.

48. Lightfoot J, Harris D, Haustead D. Challenge of managing patients with COVID-19 and acute behavioural disturbances. *Emerg Med Australas.* 2020. In press.

49. Joint Statement for Care of Patients with Behavioral Health Emergencies and Suspected or Confirmed COVID-19. American Association for Emergency Psychiatry and American College of Emergency Physicians, 2020. Available at: https://www.acep.org/globalassets/new-pdfs/joint-statement-covid-behavioral-health.pdf. Accessed April 20, 2020.

50. Simonds AK, Hanak A, Chatwin M, et al. Evaluation of droplet dispersion during non-invasive ventilation, oxygen therapy, nebuliser treatment and chest physiotherapy in clinical practice: implications for management of pandemic influenza and other airborne infections. *Health Technol Asses.* 2010;14:131-72.

51. To KK, Tsang OT, Chik-Yan Yip C, et al. Consistent detection of 2019 novel coronavirus in saliva. *Clin Infect Dis.* 2020. In press.

52. Wong AH, Combellick J, Wispelwey BA, Squires A, Gang M. The patient care paradox: an interprofessional qualitative study of agitated patient care in the emergency department. *Acad Emerg Med.* 2017;24:226-35.

53. Rothe C, Schunk M, Sothmann P, et al. Transmission of 2019-nCoV Infection from an asymptomatic contact in Germany. *N Engl J Med*. 2020;382:970-1.

54. Inouye SK, Westendorp RG, Saczynski JS. Delirium in elderly people. *Lancet*. 2014;383:911-22.

55. Klein LR, Driver BE, Miner JR, et al. Intramuscular midazolam, olanzapine, ziprasidone, or haloperidol for treating acute agitation in the Emergency Department. *Ann Emerg Med.* 2018;72:374-85.

56. Boettger S, Jenewein J, Breitbart W. Haloperidol, risperidone, olanzapine and aripiprazole in the management of delirium: a comparison of efficacy, safety, and side effects. *Palliat Support Care.* 2015;13:1079-85.

57. Guan WJ, Ni ZY, Hu Y, et al. Clinical characteristics of coronavirus disease 2019 in China. *N Engl J Med.* 2020. In press.

# 2020-21 BOARD OF DIRECTORS

*Installed September 24, 2020*

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CALIFORNIA ACEP
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Not all heroes wear capes
Some wear SCRUBS
Docter


ALAMEDA
HOME
STAY
HOME
FOR


We
Stay
Here
For
You
Please
Stay
Home
For
Us


Feel better soon
take precautions
MD
Sarah Medina, M.D.
Emergency Medicine


MD
155


PHILIPS
Vik Gulati
EMERGENCY
7

CALIFORNIA ACEP

# Chapter Awards

NOMINATIONS ACCEPTED

MAY 1- JULY 14

14 AWARDS

NOMINATIONS CAN BE SUBMITTED ONLINE

WWW.CALIFORNIAACEP.ORG


# ADVANCED›

# INSPIRED

## › CALIFORNIA ACEP'S ANNUAL CONFERENCE 2020

Education is targeted to Medical Students and Residents, but all are welcome to attend.

**Friday, September 25, 2020**
Virtual

CALIFORNIA ACEP
AMERICAN COLLEGE OF EMERGENCY PHYSICIANS

CALIFORNIA ACEP

AMERICAN COLLEGE OF EMERGENCY PHYSICIANS

**In the wake of the latest police killing of George Floyd following the recent killings of Breonna Taylor and Ahmaud Arbery, we say in the loudest and strongest possible terms that systemic racism and oppression of people of color is wrong and must be addressed.**

**As emergency physicians, we are committed to providing unconditional, quality care to all human beings who walk through our doors, regardless of race, ethnicity, religion, gender, sexual orientation, immigration status, physical ability, or any other aspect of our humanity.**

**Unfortunately, as emergency physicians we know all too well that racism continues to persist in this country and manifests as a public health crisis. We see its devastating effects on our patients and on communities of color regularly.**

**We cannot be silent. We must aggressively champion justice and equitable care and treatment for everyone in this country, in our emergency departments and within our communities.**

WWW.CALIFORNIAACEP.ORG

# MEMBER Accomplishments

John Wiesenfarth, MD became President of the Sierra Sacramento Valley Medical Society.

Jamshid Mistry, DO was named Stanford Emergency Medicine's Outstanding Educator of the Month.

Nathan Kuppermann, MD, FACEP received the University of California Davis Academic Senate 2020 Faculty Distinguished Research Award.

Al'ai Alvarez, MD, FACEP received the Council of Residency Directors in Emergency Medicine Academy Member Award in Teaching and Evaluation.

Sarah Williams, MD, FACEP was promoted to Clinical Professor at Stanford Emergency Medicine.

Mohanad Alazzeh, Pranjal Gupta, Tate Higgins, and Paige Ruiz matched into Stanford Emergency Medicine residency program.

Paloma Marin-Nevarez was matched at the University of California San Francisco, Fresno emergency medicine residency.

Casey French, DO; Annie Ma; Thomas Shank; and Joseph Yoon, MD matched into University of California Davis Emergency Medicine Residency Class of 2023.

Al'ai Alvarez, MD, FACEP published his article "The Impact of Due Process and Disruptions on Emergency Medicine Education in the United States" in the *Western Journal of Emergency Medicine*.

Cori Poffenberger, MD, FACEP and Moon Lee, MD, FACEP were promoted to Clinical Associate Professor at Stanford Emergency Medicine.

Bryn Eisfelder, MD and Carol Conceição, MD launched a new YouTube channel, "The FrontlinER," which focuses on physician experience during COVID-19.

David Kim, MD; James Quinn, MD, FACEP; and Ian Brown, MD, FACEP had their research letter "Rates of Co-infection Between SARS-CoV-2 and Other Respiratory Pathogens" published in the *Journal of the American Medical Association*.

Kimberly Schertzer, MD, FACEP was selected for the Association of American Medical Colleges' Early Career Women Faculty Leadership Development Program.

Jesse Kellar, MD, FACEP became the Program Director for the new Emergency Medicine Residency Program at Saint Agnes Medical Center in Fresno.

Christian Rose, MD and Al'ai Alvarez, MD, FACEP published their article "Physically Distant, Educationally Connected: Interactive Conferencing in the Era of COVID-19" in *Wiley Online Library*.

Harrison Alter, MD, FACEP; Aimee Moulin, MD, FACEP; and Marc Futernick, MD, FACEP received the 2020 American College of Emergency Physicians Council Teamwork Award.

Benjamin Lindquist, MD wrote the children's book *I Love You When You're Close and When You're Far Away*.

Angela Lumba, MD; Moon Lee, MD, FACEP; Ian Brown, MD, FACEP; Bernard Dannenberg, MD, FACEP; Jason Lowe, DO; and Ewen Wang, MD, FACEP published their article "Emergency department implementation of abbreviated magnetic resonance imaging for pediatric traumatic brain injury" in the *Journal of the American College of Emergency Physicians Open*.

Irving "Jake" Jacoby, MD, FACEP was given the 2020 American College of Emergency Physicians Disaster Medical Sciences Award.

William Mallon, MD, FACEP received the 2020 American College of Emergency Physicians Council Curmudgeon Award.

Shashank Ravi, MD, MBA was promoted to Assistant Medical Director at Stanford Emergency Medicine.

Enid Picart received the 2020 United States Public Health Service Award.

Wei David Hao, MD received the Young Physician award from Global Emergency Medicine Academy Society for Academic Emergency Medicine.

Aaron Lee, MD created and donated 3D printed mask extenders for the University of California Davis Health Center.

James Holmes, Jr., MD, MPH, FACEP became President of the Society for Academic Emergency Medicine.

Al'ai Alvarez, MD, FACEP received the Society for Academic Emergency Medicine/Academy for Diversity and Inclusion in Emergency Medicine's Outstanding Academician award.

Kimberly Moulton, MD received funding from the Academy for Women in Academic Emergency Medicine for her study "An Exploration of the Barriers and Supports to Workplace Lactation for Women in Emergency Medicine".

Cameron Barr, MD; Leo Aliaga, MD; and Kevin Durgun, MD were named the 2021 chief residents at UC Davis EM.

***Did you get a new job? Get promoted? Get published? Achieve a goal?***

Let California ACEP know and we will include it in this new section of Lifeline. Tweet your accomplishment and tag **@californiaacep** or submit your accomplishments at: **https://californiaacep.site-ym.comsurveys/?id=Accomplishments.**

# CEMAF **DONORS**

**The California Emergency Medicine Advocacy Fund (CEMAF) has transformed California ACEP's advocacy efforts from primarily legislative to robust efforts in the legislative, regulatory, legal, and through the Emergency Medical Political Action Committee, political arenas.** Few, if any, organization of our size can boast of an advocacy program like California ACEP's; a program that has helped block Medi-Cal provider rate cuts, lock in $500 million for the Maddy EMS Fund over the next 10 years, and fight for ED overcrowding solutions! The efforts could not be sustained without the generous support from the groups listed below, some of whom have donated as much as $0.25 per chart to ensure that California ACEP can fight on your behalf. **Thank you to our 2019-20 contributors (in alphabetical order):**

- Antelope Valley Emergency Medical Associates
- Culver Emergency Medical Group
- Emergent Medical Associates
- Mills Peninsula Emergency Medical Associates
- Napa Valley Emergency Medical Group
- Pacific Emergency Providers, APC
- Riverside EP
- Temecula Valley Emergency Physicians
- Torrance Emergency Physicians
- US Acute Care Solutions
- VEP Healthcare Inc.
- Vituity

## ANNOUNCEMENTS |

### CALIFORNIA ACEP SPONSORED & CO-SPONSORED COURSES

**Save the Date! AdvancED 2020 Annual Conference is Going Virtual!**
September 25, 2020

### SUBMIT A *LIFELINE* ARTICLE

Looking for a way to share your emergency medicine experience? Want to share a story from your last shift? Or maybe career or life advice? We're looking for member and guest articles, including letters-to-the-editor. Please note that all articles and letters are reviewed and may be edited for grammar and content.

If you would like more information or would like to submit a guest article, email **info@californiaacep.org.** The Fall 2020 issue of Lifeline will be about Social EM!

### NOMINATE A CAL/EMRA ALL-STAR

Do you have an EM all-star hiding in your program and want to get their name out there? We're looking for residents or medical students that deserve recognition!

Nominations can be submitted at **bit.ly/nominate4calemra.**

### WE MOVED!

The Chapter moved suites on October 1, 2019. Please update your records with our new address:

**California ACEP**
**1121 L Street, Suite 401**
**Sacramento, CA 95814**

For more information on upcoming meetings, please e-mail us at **info@californiaacep.org**; unless otherwise noted, all meetings are held via conference call.

## JUNE 2020

| | |
|---|---|
| **14th** | **Chapter Award Nominations Close**<br>Online |
| **24th at 9am** | **Executive Committee**<br>Conference Call |

## JULY 2020

| | |
|---|---|
| **9th** | **Board of Directors Meeting**<br>Conference Call |
| **22nd at 9am** | **Executive Committee**<br>Conference Call |

## AUGUST 2020

| | |
|---|---|
| **4th – 5th** | **Board of Directors Retreat** |
| **13th at 10am** | **Government Affairs Committee (GAC)**<br>Conference Call |

### JUNE 2020

| SUN | MON | TUES | WED | THURS | FRI | SAT |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |

### JULY 2020

| SUN | MON | TUES | WED | THURS | FRI | SAT |
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| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

### AUGUST 2020

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| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

**SOUTHERN CALIFORNIA – ORANGE COUNTY**: Positions available for full and part time BC/BE EM and Peds EM physicians. Partnership track is available for full time physicians. We are a stable, democratic group established in 1976 serving two best in class hospitals. St. Joseph Hospital is a STEMI center and Stroke Center with 80,000 visits per year. CHOC Children's Hospital is a Level II trauma center, tertiary referral center and teaching hospital (several residency and fellowship rotations) with 80,000 visits per year. Excellent call panel coverage, excellent compensation, malpractice and tail coverage, and scribe coverage. Sign on bonus for full time hires.

***Email CV and references to EMSOC@emsoc.net, fax to 714-543-8914***

**VENTURA CALIFORNIA**: We have moved into our brand new Hospital and Emergency Department as of December 2018! Central coast of California and 70 miles from LAX. Positions available in two facilities for BC/BE emergency physician. STEMI Center, Stroke Center with on-call coverage of all specialties. Teaching facility with residents in Family Practice, Surgery, Orthopedics and Internal Medicine. Admitting hospital teams for Medicine and Pediatrics. Twenty-four hour OB coverage in house and a well established NICU. Physician's shifts are 9 hrs and two 12 hour shifts of PA/NP coverage. All shifts and providers have scribe services 24/7. Affiliated hospital is a smaller rural facility 20 minutes from Ventura in Ojai. Malpractice and tail coverage is provided. New hires will work days, nights, weekends and weekdays.

***Send resume to Alex Kowblansky MD FACEP at kowblansky@cox.net***

ITLS
International Trauma Life Support
CALIFORNIA

# Looking for an ITLS course?

EMREF offers the following California providers list:

**American Health Education, Inc**
*Perry Hookey, EMT-P*
7300B Amador Plaza Road, Dublin, CA 94568
Phone: (800) 483-3615
Email: info@americanhealtheducation.com
Web: www.americanhealtheducation.com

**American Medical Response (AMR)**
*Ken Bradford, Operations*
841 Latour Court, Ste D, Napa, CA 94558-6259
Phone: (707) 953-5795
Email: ken.bradford2@gmail.com

**Compliance Training**
*Jason Manning, EMS Course Coordinator*
3188 Verde Robles Drive, Camino, CA 95709
Phone: (916) 429-5895
Fax: (916) 256-4301
Email: Kurgan911@comcast.net

**CSUS Prehospital Education Program**
*Thomas Oakes, Program Director*
3000 State University Drive East, Napa Hall, Sacramento, CA 95819-6103
Office: (916) 278-4846
Mobile: (916) 316-7388
Email: thomasffp@sbcglobal.net
Web: www.cce.csus.edu

**EMS Academy**
*Nancy Black, RN, Course Coordinator*
1170 Foster City Blvd #107, Foster City, CA 94404
Phone: (866) 577-9197
Fax: (650) 701-1968
Email: nancy@caems-academy.com
Web: www.caems-academy.com

**ETS – Emergency Training Services**
*Mike Thomas, Course Coordinator*
3050 Paul Sweet Road, Santa Cruz, CA 95065
Phone: (831) 476-8813
Toll-Free: (800) 700-8444
Fax: (831) 477-4914
Email: mthomas@emergencytraining.com
Web: www.emergencytraining.com

**Loma Linda University Medical Center**
*Lyne Jones, Administrative Assistant*
Department of Emergency Medicine
11234 Anderson St., A108, Loma Linda, CA 92354
Phone: (909) 558-4344 x 0
Fax: (909) 558-0102
Email: LJones@ahs.llumc.edu
Web: www.llu.edu

**Medic Ambulance**
*James Pierson, EMT-P*
506 Couch Street, Vallejo, CA 94590-2408
Phone: (707) 644-1761
Fax: (707) 644-1784
Email: jpierson@medicambulance.net
Web: www.medicambulance.net

**Napa Valley College**
*Gregory Rose, EMS Co-Director*
2277 Napa Highway, Napa CA 94558
Phone: (707) 256-4596
Email: grose@napavalley.edu
Web: www.winecountrycpr.com

**NCTI – National College of Technical Instruction**
*Lena Rohrabaugh, Course Manager*
333 Sunrise Ave Suite 500, Roseville, CA 95661
Phone: (916) 960-6284 x 105
Fax: (916) 960-6296
Email: jlcasa@caltel.com
Web: www.ncti-online.com

**PHI Air Medical, California**
*Eric Lewis, Course Coordinator*
801 D Airport Way, Modesto, CA 95354
Phone: (209) 550-0884
Fax: (209) 550-0885
Email: elewis@philhelico.com
Web: http://www.phiairmedical.com

**Riggs Ambulance Service**
*Greg Petersen, EMT-P, Clinical Care Coordinator*
100 Riggs Ave, Merced, CA 95340
Phone: (209) 725-7010
Fax: (209) 725-7044
Email: Gregp@riggsambulance.com
Web: www.riggsambulance.com

**Rocklin Fire Department**
*Chris Wade, Firefighter/Paramedic*
3401 Crest Drive, Rocklin, CA 95765
Phone: (916) 625-5311
Fax: (209) 725-7044
Email: Chris.Wade@rocklin.ca.us
Web: www.rocklin.ca.us

**Rural Metro Ambulance**
*Brian Green, EMT-P*
1345 Vander Way, San Jose, CA 95112
Phone: (408) 645-7345
Fax: (408) 275-6744
Email: brian.green@rmetro.com
Web: www.rmetro.com

**Defib This (ERT)**
*Brian Green, EMT-P*
1543 Pacific Avenue, Suite 104, Capitol CA 95060
Phone: (831) 426-9111
Web: www.defibthis.com

**Verihealth/Falck Northern California**
*Ken Bradford, Training Coordinator*
2190 South McDowell Blvd, Petaluma, CA 94954
Phone: (707) 766-2400
Email: ken.bradford@falck.com
Web: www.verihealth.com

**If you are an EMS Director and would like to provide chest, head shock-injury training to your team, contact California ACEP to get started!**

**ITLS is the only pre-hospital trauma program endorsed by ACEP, since 1986, and is accepted internationally as the standard training course for pre-hospital trauma care.**

**Search for upcoming courses: http://cms.itrauma.org/CourseSearch.aspx**

**EMREF is a proud sponsor of California ITLS courses.**

Please call **916.325.5455** or
E-mail **Lucia Romo: lromo@californiaacep.org** for more information.

lifeline
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College of Emergency Physicians
1121 L Street, Suite 401
Sacramento, CA 95814