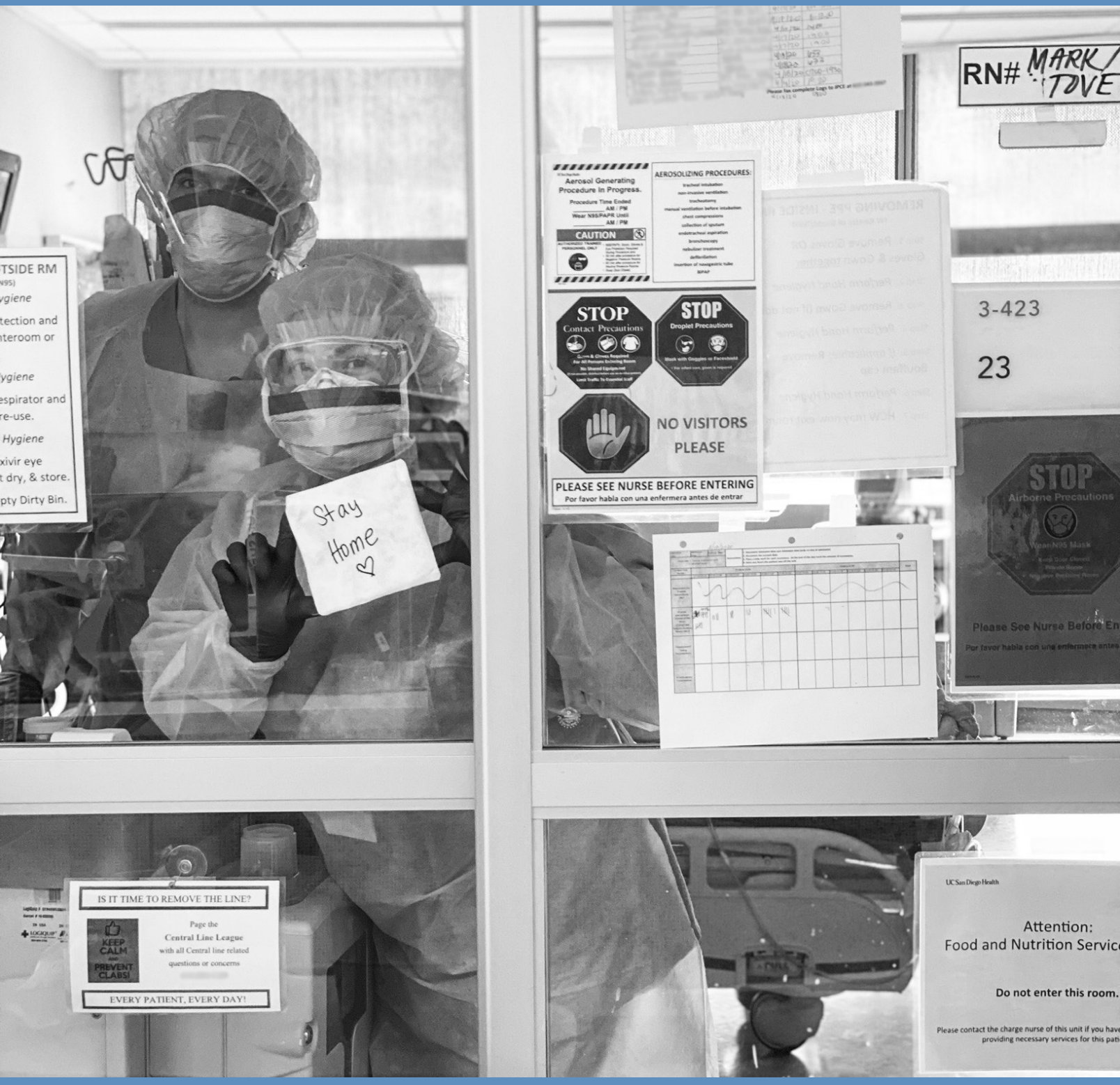
UC San Diego Health

JOURNAL OF NURSING

SPRING 2022 UNIVERSITY OF CALIFORNIA, SAN DIEGO



Pandemic Reflections

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Five Magnet Components

Transformational Leadership

Structural Empowerment

Exemplary Professional Practice

New Knowledge and Innovation

Empirical Outcomes

Shared Governance committee membership is a great way to become personally involved in the Magnet journey and to help shape the future of nursing at UCSDH. For more information go to our nursing website at https://health.ucsd.edu/for-health-care-professionals/nursing/about-us/Pages/shared-governance.aspx

On the front cover:

Cover Image contributed by: Angela Klinkhamer MSN, RN, CCRN

Inside

Message from the The Chief Clinical Officer

It is with great pride that I present the 2022 UC San Diego Health Journal of Nursing.

This journal reflects the tenacity of UCSDH nursing– how we spearheaded the COVID-19 response, how we innovate, and most importantly, how we care for our patients, ourselves, and each other. All fields of nursing, including inpatient, ambulatory, perinatal, education, informatics, leadership, research and more, have been deeply affected by the pandemic and have overcome challenges in unique ways. In this journal, you will see examples of nurses using real-time data to provide excellent care despite the personal and professional challenges of being on the frontlines. Even though the pandemic has often felt exhausting, disheartening, and lasted longer than anyone predicted, nurses have persisted.

While articles in this journal highlight many different areas of nursing, I know there are many more stories to tell about the extraordinary efforts of everyone in our health system to provide excellent care. I wish to acknowledge the role nurses played in our vaccination efforts, quickly adapting to new technology and therapeutics, and emotionally supporting patients and families. As you read through this journal, please consider sharing your own experiences and accomplishments in future publications and conferences.

Accomplishments of UCSDH Nursing

"Every nurse must grow. No nurse can stand still, [they] must go forward, or [they] will go backward every year."-Florence Nightengale, 1888 Address to Probationer Nurses at St. Thomas Hospital

UCSDH is in a constant state of growth and was recently named the top health system in San Diego and in the top five health systems in California. UCSDH was also recently ranked third nationally by Vizient Quality Leadership Annual Ranking which measures quality of patient care, an extraordinary achievement during the pandemic.

UCSDH also addressed the needs of healthcare staff with a support program model that other health systems are emulating. The Healer Education Assessment and Referral (HEAR) Program recently was awarded the Schwartz Center National Compassionate Caregiver of the Year Award for their incredible care for staff. Please take some time to read reflections from the exceptional HEAR Program counselors about how they provide support to healthcare staff to foster resiliency and consider reaching out to the HEAR Program when you need it.

Even in the midst of the pandemic, UCSDH Nursing continues to advance the profession. While the heart of nursing is at the bedside, we are expanding the role of nursing in diverse areas such as healthcare leadership, education, public health, informatics, research, continuity of care, and more. UCSDH Nursing achieved Magnet redesignation in 2021, recognizing our excellence in nursing. I would like to recognize the many UCSDH nurses who have graduated from degree programs, as well as grew professionally through certification, conducting research, and clinical ladder advancement. Additionally, many UCSDH nurses published their research and innovations (many publications acknowledged at the end of the journal). Nurses continue to share their knowledge with nursing students and their peers through preceptorships, presentations, mentorships, and new-to-practice programs.

UCSDH Nursing also started the UCSD Social Justice Forum, recognized by the American Nurses Association. They have held nine forums with over 400 participants from across the health system and academic campus to address inequities in healthcare and education. They are creating a digital platform to further and support social justice projects, foster connection, and provide educational resources.

Community

In our final selection of articles, you will read about many ways UCSDH nurses have connected community care and patient care, as well as given their time to volunteer. We continue our tradition of innovative care, including through staffing mobile vaccination units, providing cross-border intensive care education, facilitating live music to comfort patients, and overcoming healthcare barriers to provide holistic care to refugees. UCSDH also nurtured the future of nursing by ensuring the continuity of clinical experiences for nursing students when most other regional hospitals closed their doors to students. All these articles have one theme in common – supporting those who need it most. This is the heart of nursing – our caring spirit helps us always adapt and find solutions in new and creative ways.

Conclusion

When you read this journal, I hope you see yourself and some of the roles you played in fighting this pandemic. Take some time to reflect and remember the good and the painful, the stressful moments and the quiet moments. What has been your source of pride during these past two years? I hope some of the moments that made you proud will be similar to my own – that no matter what challenges we face, UCSDH nurses support each other and work together to provide excellent care for our patients. Thank you to every member of the UCSDH team for your courage, perseverance, and kindness.

With Gratitude,

Margarita Baggett, MSN, RN
Chief Clinical Officer

The Early Days and Changes in Practice

Hillcrest Inpatient Medicine Nurses on the Frontline

By: Genesis Bojorquez, PhD, RN, NE-BC, PCCN - Advanced Practice Specialist for the 6th Floor Inpatient Medicine Unit at UCSDH Hillcrest

Jennifer Rolley, MSN, RN, CPHQ, PCCN - Advance Practice Specialist for 8th Floor Inpatient Medicine at UCSDH Hillcrest

Edna Culp, MSN, APS, RN - Advanced Practice Specialist for 7 West and 9 West PCU at UCSDH Hillcrest

Rachel Lantacon, MSN, RN, CCRN - Assistant Nurse Manager for the 7 West PCU at UCSDH Hillcrest

Maria Barreto, BSN, RN - Assistant Nurse Manager for 9 West PCU at UCSDH Hillcrest

Dorothy Macavinta, MSN, RN, RN-BC, PCCN - Nurse Manager for the 7 West and 9 West PCU at UCSDH Hillcrest

Leah Federe, MSN, RN, PCCN – Advanced Practice Specialist for 10 East PCU

The COVID-19 pandemic overwhelmed healthcare systems and deeply affected healthcare staff on the frontlines. Just as UC San Diego Health (UCSDH) was instrumental in spearheading care for patients during the then-unknown HIV/AIDS epidemic of the 1980s, UCSDH staff took on the challenge of caring for some of the earliest COVID-19 patients in the United States. To meet the needs of the pandemic, UC San Diego Health converted several inpatient medicine units into cohorted COVID-19 medical-surgical, progressive care and intensive care floors at the Hillcrest Medical Center. The Hillcrest 6th floor, 8th floor, 7/9 PCU, 10 CCU, 10 East PCU, and 11 PCU became COVID-19 units. UCSDH staff were confronted with medical supply shortages, including personal protective equipment (PPE) and staffing shortages coupled with fatigue and psychological stressors such as fear of disease transmission. Despite these challenges, each of the COVID-19 units implemented best practice, preparedness, and staff support to continue providing excellent care. Below are ways each of the Hillcrest COVID-19 units adapted while providing compassionate care for patients, families, and each other.

8th Floor

On February 5th, 2020, the Hillcrest Medical Center 8th floor admitted the first group of patients under investigation for COVID-19. These patients arrived on a flight from Wuhan, China into Marine Corps Air Station Miramar and began exhibiting symptoms while under federal quarantine. The 8th floor nursing staff worked with Infectious Disease physicians, the Infection Prevention and Clinical Epidemiology (IPCE) team, and the Incident Command Center to ensure PPE and infection control competency while providing safe, quality care to this new patient population. The 8th floor nurses exemplified a high level of professionalism and dedication to their patients, team, and community.

As the pandemic evolved, UCSDH leadership decided to cohort the emerging COVID-19 patient population on a separate, previously unopened unit on 4 East. The 8th floor staff worked with Incident Command to quickly open the previously

Maria B. Barreto, BSN, RN has worked at UC San Diego Health for almost 5 years. She received her BSN from Loma Linda University and this coming summer, she will receive her MSN from University of San Diego. In addition, Maria has over 9 years' experience in leadership roles. Born in Brazil, she speaks 3 languages fluently, loves to learn new culture, enjoys cooking for friends and traveling around the world.

Jennifer Rolley, MSN, RN, CPHQ, PCCN has over 12 years of Medicine, Trauma, Transplant, and Surgical Oncology Nursing Experience. In 2014, Jennifer accepted her first position at UC San Diego Health and in 2019 earned her MSN from University of Texas, El Paso. Her current role focuses on Nursing Quality, Regulatory and Nursing Professional Development.

unstaffed, non-operational unit and safely transfer the COVID-19 patients. Though caring for patients with a novel infectious disease is intimidating, many 8th floor staff members volunteered to staff the new unit.

Compassionate nursing care is essential, particularly during a crisis. The first UCSDH COVID-19 patients had been through an exhausting and stressful journey, and they were frightened. They had traveled from Wuhan to federal quarantine and then to an isolated hospital room after displaying symptoms. Nurses recognized the need for addressing patients' psychosocial and cultural needs in addition to providing medical care. For instance, one 8th floor nurse identified a lack of hot drinking water for tea as a cultural gap and advocated for patients to have individual hot-water kettles. Constant collaboration with interdisciplinary teams and unit leadership led to improved efficiency and patient-centered interventions. The nursing staff recognized the importance of caring for this patient population on a local, national, and global level. They took pride in the opportunity to care for these patients, striving to provide a positive experience in a difficult and trying time.

Above: "We have each other's backs" (8th Floor Joshua de Jesus and Angelina Kondrokova)

Below: 8th Floor—Magnet Pride shining through, despite COVID-19. (L-R: Ashley Banaag, William Flores, and Radinka Yordanova)

Top: 10 East PCU's message to the community early in the Pandemic.
(Top L-R: Vanessa Vinci, Briana Torok, Mini Velu, Liz Weinrib, Shawna Karmes; bottom L-R: Ruth Perez, Janine Nacua (USD MEPN student), Kiah Crowley, Enedina Rangel)

Above: 10 East PCU featured on the Youtube video "Some Good News" with John Krasinski representing Healthcare Heroes.
(Top L-R: Liz Whiteman, Molly Turdyn, Lauralee Pittman, Carla Profeta, Liz Weinrib, Maria Dunbar. Front row: Dr. Kevin Kwak, Enedina Rangel, Shawna Karmes.

10 CCU

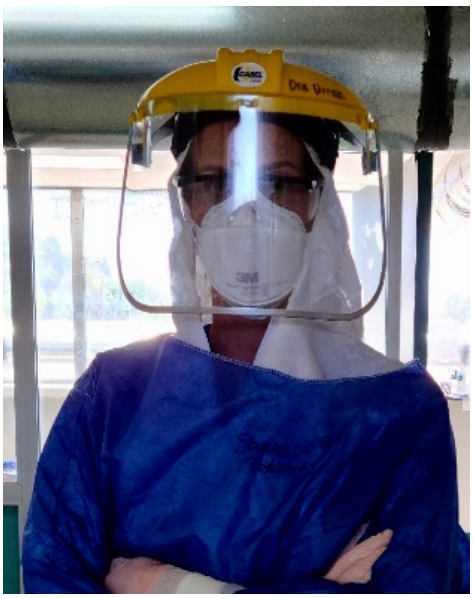
Hillcrest Critical Care Unit (CCU) staff have developed and participated in several innovative solutions in response to the pandemic.10 CCU received the first COVID-19 positive patient system-wide and became the designated COVID-19 ICU at the UCSDH Hillcrest campus. 10 CCU has had the privilege of participating in two COVID-related research studies. First, 10 CCU was one of the 60 sites around the world to contribute to the groundbreaking research on the antiviral drug Remdesivir during the ACTT-1 trial of Remdesivir vs. placebo. During the trial, CCU nurses were among the first clinicians in the world to administer this drug. The resulting research published in the New England Journal of Medicine found that Remdesivir was associated with a faster recovery time for patients with COVID-19 and it became implemented as best practice. The second study, led by a CCU RN, assessed the use of paralytics in proning COVID-19 patients with acute respiratory distress syndrome (ARDS). The standard had been to utilize a paralytic when proning a patient. However, this study demonstrated that there was no significant difference in oxygenation or adverse events in paralyzing patients versus not paralyzing patients when

10 East PCU Manager Dante Segundo and nurse Stephanie Lichtwardt preparing to enter a COVID-19 patient room.

they are proned.

From the beginning of the pandemic, CCU staff and the San Diego community continuously thought of innovative ways to ensure staff safety and show support. At the beginning of the pandemic, there was an outpouring of donations of PPE (face shields, masks), food, and novelty items to help increase the safety and morale of the CCU staff. A telemetry technician's wife sewed masks to provide for the staff, a physician's friend donated 3D printed face shields, and individuals from across the country sent in homemade scrub caps to protect nurses. Another donor provided two-way radios for each of the 13 isolation rooms in the CCU. These two-way radios were a tremendous help in obtaining supplies, equipment, and additional aid without the need of donning/doffing valuable PPE or the infection control issue of having to repeatedly open the patient's door to alert another team member that assistance was needed. A CCU nurse assembled "Code Blue" PPE packs, which includes five N95 masks and five face shields to make donning PPE quicker in emergent situations. These PPE Packs allowed the code nurse to respond to codes in the hospital quickly and efficiently without having to search for limited N95 masks and shields while in an unfamiliar location. Another frontline nurse volunteered as a goodwill ambassador during the pandemic and advocated for donations of scrubs, food, and small items that brought joy to the staff of CCU.

The CCU staff's endless compassion, innovation, and motivation to make a difference in the lives of their patients and coworkers has always been their trademark. However, through the pandemic, these traits were further heightened and will continue to be part of 10 CCU culture even after the pandemic ends.



Shannon Cotton volunteering in Mexico, in addition to staffing her own unit 10 ICU.

Leah Federe, MSN, RN, PCCN, has been a nurse for 25 years with 22 years spent working in 10 East PCU at Hillcrest. She is currently working on her DNP and hopes to finish within the year. UCSDH has been her home for so many years because of her coworkers and her patients.

Dorothy Macavinta, MSN, RN, RN-BC, PCC is an experienced clinician and a nurse leader. She has been a recipient of the David and Alice Miller UCSDH Nurse of the Year award in 2006. In 2020, she was recognized as a Nurse Leader of the year for Empirical Outcomes. When away from work, Dorothy enjoys spending quality time with family and friends.

Rachel Lantacon, MSN, NP-CNS, AGPCNP-BC, CCRN is the Assistant Nurse Manager for 7 West, 9 East, and 9 West. She started as a New Grad nurse at UCSDH in 2010 and later graduated from San Diego State University with her Master's. In her free time, she enjoys going to the park and playing dress up with her two little girls.

10 East PCU

10 East was one of the first units to care for patients with COVID-19 at the start of the pandemic. This sparked fear and uncertainty in the staff. They feared contracting the virus and potentially bringing it home to their families. Despite their fear, their compassion and sense of responsibility to the community and their patients gave them the strength to face this pandemic head on. Some nurses stayed away from their homes for days to reduce the risk of transmission to their family members.

Some COVID-19 patients were very sick and deteriorated quickly. The nurses were quick to react and called rapid responses or codes when indicated. During one rapid response that was escalating to a code blue situation, one of our clinical care partners, who is now a nurse and just completed the UCSDH nurse residency program, noted the team using valuable time looking for PPE during these emergent situations. To help save valuable time, she created a COVID-19 Code Blue Box. It is a container filled with PPE for the code team during rapid responses or codes. It is always stocked and readily available with the appropriate PPE to care for COVID-19 patients and is now housed on every unit that cares for COVID-19 patients.

The 10 East nurses took on new responsibilities to keep the unit running. They became housekeepers, case managers, social workers and dieticians. When visitors were not allowed, the nurses became patients' friends, family members and provided hope for recovery. To prepare for the possibility of a surge, 10 East nurses learned how to manage ventilators through an asynchronous learning model adapted for the pandemic. Despite the endless changes and challenges, nurses continued to provide safe, compassionate and excellent care. Nurses on 10 East have shown incredible resilience and continue to show their friendship and support for one another throughout the pandemic.

7 West/9 West PCU

The 9 West Medical ICU was transformed into a COVID-19 Progressive Care Unit seemingly overnight to meet the increasing census of COVID-19 positive patients requiring intermediate care and close monitoring. 9 West began caring for patients that warranted a high level of care and direct observation but were stable enough not to warrant intensive care. For example, patients in 10 CCU who were otherwise stable but required high flow oxygen were identified by pulmonary ICU attending physicians and downgraded to PCU level of care due to a shortage of ICU beds. With just-in-time in services, 9 PCU was able to provide high flow oxygenation >60% FiO2 along with the support of Respiratory Therapists to patients requiring this kind of care. 9 West was also the first PCU to care for a patient on a ventilator until there was ICU bed availability.

To meet physical and infection control requirements, 9 West needed to convert its space. The unit layout has six beds in an open bay and is known as "The Fishbowl" by its nursing staff. To become a COVID-19 unit and for infection control purposes, the structure of the unit required the unit doors to always remain closed and clear plastic barricades were erected to separate the nursing station from patient beds but still allow direct patient observation. Interdisciplinary teams rapidly prepared the unit with supplies and equipment, posted infection control signage, and staff received just-in-time training on using high-flow oxygen equipment, ventilators, COVID-19 infection control, donning and doffing of PPE, and using Powered-Air Purifying Respirators (PAPRs).

The 9 West PCU conversion, although swiftly completed, was safely transitioned. A large interdisciplinary team continually assessed the environment of care to meet the needs of patients and staff. Members from many disciplines including Quality and Patient Safety, Regulatory Affairs, Facilities Engineering, the ICU Medical Director, the Infectious Disease Medical Director, Nursing Administration, Risk Management, and many other departments helped open and support the unit.

"I can see you—but I can't hear you!" Navigating extra logistical challenges that came with COVID-19 era. [L-R: Bella Gulkarova (7W), Kathryn Brown (7W), and Maria Fernandes (9 PCU)]

Due to the open nature of the unit, 9 PCU nurses had to remain in PPE for an entire shift. Despite the long hours and stressful nature of caring for patients with a novel disease, 9 PCU nurses continued to provide excellent care. 7 West PCU nurses made themselves available to provide support when a necessary break was needed. Interdisciplinary collaboration with teams led to innovative strategies for stocking supplies and staff support such as the use of a linen cart to replenish supplies from storehouse, providing hospital scrubs for nursing staff, designated space for staff to store individual PAPRs, and providing pens and paper in patient rooms for nurses to communicate forgotten items while at the bedside in order to preserve PPE.

9 West nurses report they grew and learned from their experiences and they move forward with compassion and empathy for patients and their families. As the number of patients with COVID-19 declines, 9 West will transition back into a medical unit and will continue to care for patients on high flow oxygenation needing direct observation. The whole team responded to the COVID-19 pandemic with the heart and skills of resilient staff and exemplified the best of the best!

9 PCU RN Mariah Ramos collaborating with MD/RT team to care for patients

"We can do this!" Leaders and staff ready 9 PCU to become the next COVID-19 unit at a moment's notice. (Edna Culp, Jeselyn Edjan, Socorrina Diaz, Jona Niones, Monette Paragili, Dorothy Macavinta, and Rachel Lantacon.)

Edna V. Culp, MSN, RN, CNS is the Advance Practice Specialist for 7 West, 9 West, and 9 East in Hillcrest. She received her BSN from Seattle Pacific University and her Master's in Nursing, CNS in Adult Gerontology from University of San Diego. She has over 23 years of experience in various nursing roles including ICU, PACU, Transition Nurse Specialist, and Transitional Telephonic Nurse. She is passionate about her volunteer work with Movement Disorders Design Review and Well Spouse Association.

6th Floor

To respond to the PPE shortage crisis while maintaining best infection control practices, the 6th floor trialed several innovations. They trialed the utilization of reusable gowns, "COVID Carts" for supply management and organization, and partnered with the resource nurses to provide increased support to primary nurses with COVID-19 patient assignments. COVID Carts were fully implemented because they improved efficient access to necessary PPE supplies, improved nurse satisfaction, and the carts were easily kept stocked.

6th floor team members participated in the "6th Floor COVID Morale Team" project to promote nurse resilience and psychological support. Morale Team leads collected photos and videos of significant moments throughout 2020-2021 to highlight team spirit and efforts. Heartfelt tokens of gratitude continue to be distributed by the Morale Team and has enhanced the 6th floor team's ability to cope with the stress of the pandemic.

"Coming up smelling like roses..." (6th Floor L-R: Tania Miller, Melissa Alberto, and Karenne Ruiz)

6th Floor spreading some 'COVID-friendly' holiday cheer...

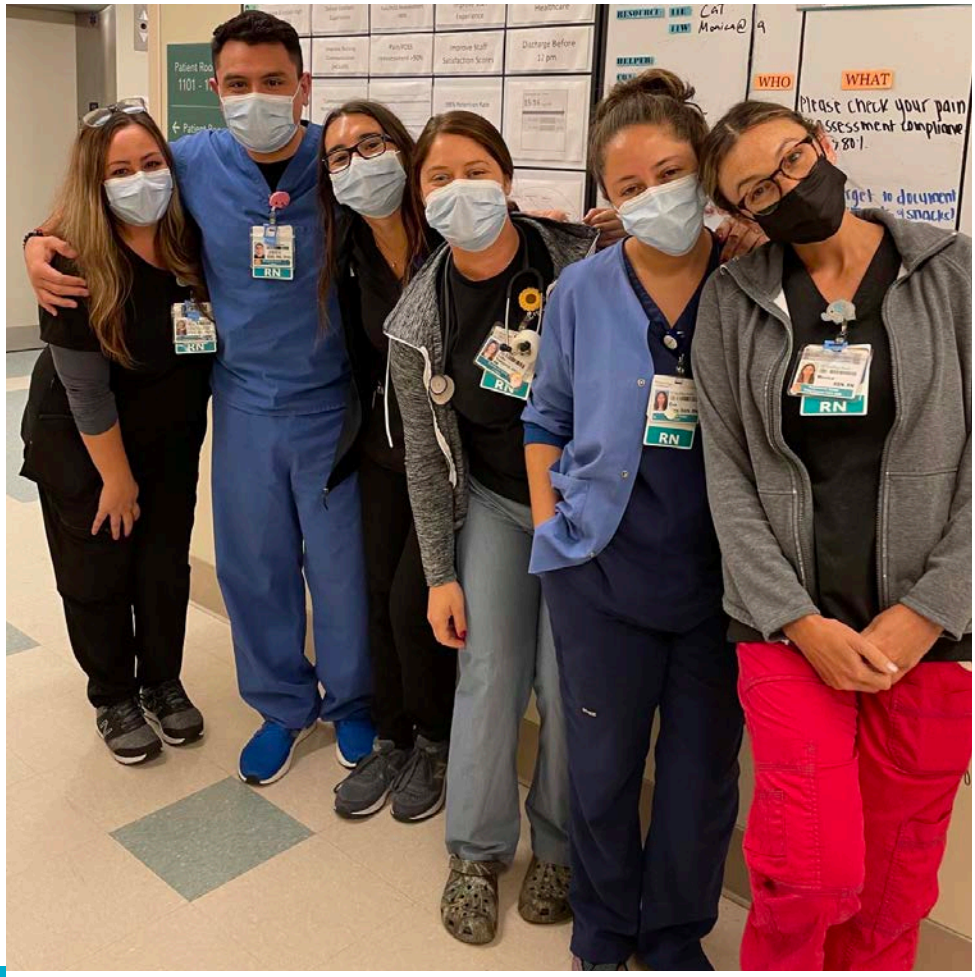
Desiree and Venessa 'twinning it' on the 6th Floor

Taking the shot (vaccination) to protect ourselves and each other—"Feeling Cared for" (6th Floor: Shar Fontanares and Oliver Orece)

"Teamwork Makes Dream Work...now back to 6-feet apart!" (6th Floor Clockwise: Desiree Penetrante , Vanessa Taneo, John Manzano, Tania Miller, Monica Pita, Bea Lizarraga, Genesis Bojorquez, Terika Island, Sonia Thomas, and Agnes Bocalan)

Hydrate, Hydrate, Hydrate...Cheers" (6th Floor L-R: Jamie Kim, Oliver Erece, Terika Island, Tania Miller, and Imee Gasmido.)

11th Floor Progressive Care Unit finding ways to celebrate Magnet re-designation in spite of pandemic



11 PCU at DES Boards (L-R: Heather Davis, Josh Villagrana, Rachael Kendall, Colby Thompson, Eva Terry and Monica Rivera.)

Diana Davalos (11 PCU) first vaccine dose

11th Floor PCU

During the December 2020 COVID-19 surge, the 11th Floor Progressive Care Unit transitioned into a designated COVID-19 unit. The 11th floor adapted the best practices from other early primary COVID-19 units in caring for patients and effectively utilizing resources and PPE. The nursing team took pride in the opportunity to provide quality care while striving to provide positive experiences during a difficult time.

During the same time, UCSDH opened the vaccination superstation at Petco Park and began vaccinating the San Diego community. The 11th floor staff volunteered to work at the vaccination superstation. Their experience of fighting COVID-19 by treating the hospitalized gave many nurses a sense of achievement. Nurses displayed dedication to each other, their patients, and their community.

11 PCU Manager and ANIIs celebrating at mid-pandemic Holiday party
(L-R: Diana Davalos, Anthony Adams, Leah Yoshitaki-Yusi)

11th Floor Progressive Care Unit Based Practice Meetings being held via Zoom as pivot solution to endure pandemic restrictions

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Staff Perspectives on Caring for the First Patients with COVID-19

By: Missy Meehan MSN, RN, ACNS-BC and Dorothy Lang PhD, RN, CCRN, CPHQ
with contributions by Hillcrest nurses and nurse leaders

In February 2020, UC San Diego Health (UCSDH) began caring for some of the earliest patients that were under investigation for COVID-19 from Marine Corps Air Station Miramar, where they were transported to quarantine after evacuation from Wuhan. As patients arrived, they were initially cared for on the 8th floor unit in Hillcrest. Shortly thereafter, Hillcrest 4-East became designated as the primary COVID-19 unit for UCSDH and was staffed completely by nurse volunteers. The Hillcrest Nurse Leaders elected a group management model to divide and concur the immense amount of novel work to be undertaken opening a new unit to care amid the unknowns of an evolving pandemic. Director level Nurse Leaders manned the UCSDH Incident Command (IC) Center operationalizing the constant flow of internal, local, national and global data and requirements. Unit Managers (NM) and Assistant Nurse Managers (ANM) assembled themselves and pooled their collective strengths to identify needs and address them in real time. Nurses and nurse leaders were asked to reflect on their experiences at the beginning of the pandemic, and the changes they have witnessed in the months since. Below are some themes that emerged from these interviews, with direct quotes from the frontline nurses who cared for the first wave of patients with COVID-19.

COVID-19 Unit Logistics

As the pandemic developed, nurses innovated ways to make caring for COVID-19 patients more efficient and considerate. The unit was locked and under guard, visitors were strictly prohibited. Nurses were responsible for total care of these patients, while also trying to understand this unknown disease process. Because exposure and transmissibility were yet to be fully understood, some volunteer nurses needed to quarantine away from their families and felt they were treated as "contagious" by their peers for working with COVID-19 patients. There were additional cultural and linguistic considerations that made care more complex. Nurse leader team and Frank Myers of Infection Prevention, Control and Epidemiology (IPCE) created a rotation to round on unit and provide ongoing two-way communication between the unit and IC.

"The environment [of 4-East] at that time was very cold, almost sterile feeling, and had so much fear wrapped into it initially, from both a healthcare worker and patient perspective."

"Nothing about this unit was normal. It was a locked unit with armed U.S. Marshals in the hallways."

"It was really odd. [The first] patients weren't really sick at all. We were

Dorothy Lang, PhD, RN, CCRN, CPHQ has been an RN at UCSDH for 15 years, with 13 of those years being in the 10 ICU. While working in 10 ICU, she has had the pleasure of working with a spectacular group of nurses as a bedside nurse, then transitioning to an Assistant Nurse Manager, and currently as the Advance Practice Specialist.

Missy Meehan, MSN, RN, ACNS-BC has 20-plus years of experience in Liver Disease, Transplantation, and Hepatobiliary Surgery in Los Angeles, CA. She has also long been involved with industry sponsored and MD driven research, grants, and program development within those specialties. Since relocating to San Diego in 2009, she obtained her MSN/CNS at Point Loma Nazarene University, a second professional certification, and became a adjunct professor as well as a licensed foster and adoptive parent. Her practice focus has shifted to Professional Development of nurses and Quality Improvement.

extremely cautious and used negative pressure rooms for all patients and a very specific way of doffing PPE."

"It took us 2 plus hours just to deliver meal trays because of the donning and doffing and use of interpreters to ensure each patient had what they needed."

"A challenging aspect with the Wuhan evacuees was the language barrier. Most of our patients on 4 East were Mandarin speaking ... [and] required interpreters at every interaction."

Changing Information and Protocols

Resource availability and swift changes in the understanding of the transmissibility of COVID-19 resulted in rapid changes with infection control protocols, which caused anxiety among staff and the public. On the 4-East unit, nurses needed to stay flexible in order to pivot to new guidelines, sometimes from one shift to another. Nurse leader team and Frank Myers of Infection Prevention, Control and Epidemiology (IPCE) created a rotation to round on unit and provide ongoing two-way communication between the unit and IC. Hearing the need for more communication, UCSDH executive leadership started CEO Townhalls and the Pulse COVID-19 webpage late March 2022 in an effort to increase accessibility and disseminate important information quickly and efficiently to staff. Communication and transparency remain key in challenging times, but what that they look like optimally is still open for debate.

"Changes frequently contradicted prior guidelines or policies, leading to perceptions of leadership's lack of transparency in communication."

"We quickly learned about the science, and changing science, of COVID and the importance of using resources diligently."

"Policies have swung from strictly enforcing that staff were not allowed to wear regular masks unless in patient rooms—to now we aren't even allowed to walk into the hospital without a mask."

"It is mind-blowing that N95 masks were initially reserved for wearing only during aerosolizing procedures and had to be reused due to the scarcity of PPE."

"While...executive leaders were navigating immense regional, national, and global pressures...[we wanted] more of a day-to-day physical presence from executive leaders on COVID units."

Teamwork

COVID-19 nurses on 4 East quickly collaborated to address the challenges of caring for patients with the novel coronavirus. The volunteer nurses were motivated by many factors, ranging from wanting new experiences, "doing the right thing", being part of something larger than themselves, to "helping out not only patients but also my fellow coworkers."

"The staff built relationships with each other, as well as the US Marshals, and had great rapport with the patients."

"Watching the teams come together to problem solve and support each other was inspiring."

"I loved it so much I would volunteer even if it meant working 5 plus days in a row."

"I felt like the hospital system as a whole really looked out for all the caregivers throughout the entire experience."

"We work well together in a crisis."

"I am still overwhelmingly touched when I think about my unit specifically [the 8th Floor] and how every single person found a way to contribute one way or another."

"Collaboration and teamwork have been the constant threads throughout this entire pandemic, despite all the challenges and obstacles that came along. Staff at every level found the will to continue because we held each other accountable and made it clear that we are all in it together. No one is alone. That is what keeps me going."

Moral Distress and Burnout

Even though nurses believed in the importance of their work, the physical and social-emotional burden took a toll on their wellbeing. Additionally, the risk of exposure, divisiveness over vaccination, and high mortality rate led to frequent expressions of demoralization for those on the frontlines of healthcare. While some units were able to take periodic breaks from being COVID-19 designated units, due to limited number of beds our ICU level of care areas were not

8th Floor—first to stand together receiving the initial patients arriving from Wuhan, China via MCAS Miramar.

able to be afforded this same respite period. These are of course also the precise areas experiencing higher volumes of death and end of life care related to COVID. Nurse leaders and staff are recognizing the importance of caring for themselves and advocating for more resources to help prevent burnout.

"[We are] fighting exhaustion, both physically and emotionally."

"It is heart wrenching trying to update families and keeping them away from their loved ones"

"Our nurses have been exposed to more death and dying than nurses before us experienced in an entire career."

"[It is frustrating that] unvaccinated individuals [are] suffering and infecting others and causing completely preventable hospitalizations."

"It is frustrating that the worst could have been prevented."

"We need a lot more relief mentally and physically."

"We learned we are stronger and can withstand more than we think, but that we are also in dire need of a better model of self-care and burnout prevention."

"It was very challenging personally and professionally to shift from crisis management mode to realizing there is no immediate end in sight and ultimately shifting to long-haul mode incorporating COVID-19 into daily life and ongoing operations."

Final Reflections

Many nurse volunteers felt working with the first patients with COVID-19 on the 4-East unit was an "honor" and "career defining". Reflections on the how the experience has shifted their whole perspective on life were also prominent. While much has changed since those initial days, the feelings of pride, respect, and professional achievement remain.

"The pandemic has brought a focus on the simpler things that bring us joy, like spending time with loved ones, and I hope this persists into the future."

"I did not think I had much to

"We Showed Up—We Cared—We Conquered—Day-to-Day Heroes without Capes!" (L-R: 9 PCU Maria Barreto, Maria Fernandes, Debritu Mekonnen, and Jennifer Langton.)

contribute but working on 4-East was truly the greatest honor of my young career so far."

"Everyone needs to be cared for compassionately."

"Professional caregivers [should] continue to value and respect each other, learn from each other, and truly listen to one another."

"I have so much respect for my fellow healthcare workers—from physicians to nurses to housekeeping—everybody involved!"

Hillcrest Nurse Leaders rallying together to support staff and patients...ready to celebrate a COVID-19 patient being discharged. (L-R: Monica Neslage, Paige Fitzwater, Lauralee Pittman, Lisa D'Olier, and Steffanie Bartholme)

JMC 3GH ICU COVID-19 Innovations

By: Anthony Rodelo, MSN, RN, CCRN

Anthony Rodelo, MSN, RN, CCRN, Clinical Nurse Educator

Prior to become a Registered Nurse, he spent 12 years in the U.S. Marine Corps. After the military, he pursued a career in nursing and graduated from the University of San Diego with a Master of Science in Nursing. He is passionate about nursing and has worked at UCSDH for over seven years, including in the IMU, ICU, and as a nurse educator. His beautiful wife, Janet, is an Occupational Therapist at UCSDH and together they have two daughters, Annabelle and Addison, and a baby boy, Jayden, all who were born at UCSDH.

Since the onset of the pandemic, 3GH ICU was challenged with caring for the most critically ill patients with COVID-19 while serving as the Jacobs Medical Center (JMC) COVID-19 cohort ICU. Two of the main interventions 3GH ICU employed for the most critically ill patients with COVID-19 were pronation therapy and Veno-Venous Extra Corporeal Membrane Oxygenation (VV ECMO). Pronation therapy and VV ECMO had been identified as therapeutic treatments for patients experiencing acute respiratory distress syndrome (ARDS), a disease process associated with severe COVID-19 cases.

Pronation therapy, the process of turning a patient from their back onto their abdomen, was occasionally performed on 3GH ICU as a respiratory therapeutic intervention prior to the pandemic. Manually proning a patient typically required about six staff members to safely execute, but would increase depending on the weight of the patient and number of medical devices in use, such as ventilators and ECMO machines. With the onset of COVID-19, the volume of patients that would benefit from proning significantly increased, which taxed staff physically and mentally. To assist with the proning process, 3GH ICU worked closely with Environmental Health and Safety (EHS) Specialists and the Nursing Education Development and Research (EDR) Department to implement the use of mechanical lift equipment for proning and supination (turning the patient from their abdomen to their back) to decrease both the physical demand and risk of injury to staff members. The collaboration between EDR, EHS, and 3GH ICU began mid 2020 with unit demonstrations and evolved into in-services, staff friendly tip sheets, how-to videos, and presentations at the 3GH ICU education committee.

With the increased volume of proned patients, 3GH ICU recognized a need for interventions to prevent proning-specific hospital-related injuries to patients, including pressure related skin injuries, CAUTIs, aspiration events, and femoral nerve damage. To counter the incidence of pressure injuries, staff education focused on improving existing practices and implementing new interventions with unit in-services, tip sheets, just-in-time training, and discussion at the 3GH ICU education committee. 3GH ICU nurses were instructed to pad the philtrum, chin, and cheeks, lubricate nares and oral mucosa, and adopted a new device to secure the endotracheal tube (as opposed to twill ties). To reduce CAUTIs, 3GH ICU established the practice of performing urinary catheter care immediately prior to proning and immediately after supination. To reduce the risk of aspiration, the unit focused on placing post-pyloric feeding tubes prior to pronation. To help decrease femoral nerve damage, 3GH ICU physicians and nurses collaborated with other teams, such as neurology and pharmacy, to implement placement of extra padding on the down hip when positioning proned patients. Per Amy Bellinghausen, MD, Pulmonary & Critical Care Medicine, there had been no identified new cases of femoral

nerve damage since the addition of supplemental padding.

The most notable change the pandemic set in motion was the implementation of Veno-Venous (VV) ECMO on 3GH ICU. VV ECMO served as one of the most advanced lifesaving interventions for those with severe COVID-19 symptomology, such as respiratory failure. The introduction of VV ECMO within this unit required extensive collaboration with nursing staff, the pulmonary critical care team, and the ECMO team. 3GH ICU partnered with all stakeholders to develop training on the responsibilities of the primary RN when caring for a patient on ECMO, with the ultimate goal being to provide safe patient care and improve patient outcomes. The integration of VV ECMO within 3GH ICU improved outcomes and formed an integral component of caring for the sickest patients. Since the onset of the pandemic, there have been 81 COVID-19 patients on VV ECMO, 41 in 2020, and 40 in 2021. A total of 20 of the 2020 patients survived. Of the 2021 patients, 20 have survived or currently remain on ECMO. Per Cassia Yi, Clinical Coordinator, Mechanical Circulatory Support Program, these numbers are consistent with national survivability data.

In addition to the care provided to patients with COVID-19, the 3GH ICU continued to serve as the critical care unit for multiple specialties, including medical, surgical, oncological, neurological, and transplant patients. One of the most notable successes was 3GH ICU nurses cared for 91 liver transplant patients in 2020 and set a goal to surpass that number in 2021. 3GH ICU successfully cared for JMC's first live liver transplant donor and recipient, and continued to support lung transplant workups, which now include those with COVID-19. 3GH ICU nurses have also contributed their time supporting other units, volunteering at community vaccination sites, and providing critical care and education to Tijuana hospital staff, which are acts of kindness consistent with the culture and tradition of the unit. Despite the mental and physical challenges of the pandemic, 3GH ICU nurses have continued providing excellent patient care while improving their processes and innovating solutions.

Drawing by Ashley Elwell, BSN, RN

Women and Infant Services Response to COVID-19

By: Ala Garza, MSN, RN, NEA-BC Sr. Director of Nursing Women & Infants Services

Kimberly Carriker DNP, RNC-OB, NE-BC, Nurse Manager Labor & Delivery

Jackie Iseri MSN, RNC-NIC Nurse Manager Neonatal Intensive Care Unit

Kimberly Carriker, DNP, RNC-OB, NE-BC is the nurse manager for Labor and Delivery at JMC and Hillcrest. She has worked for the UC system since 2011. She recently welcomed her own pandemic baby, Felix, and finished her doctoral program all within the same week.

Ala Garza, MSN, RN, NE-BC is the senior nursing director for Women and Infants Services. She has over 24 years of experience in various nursing roles, including flight nursing, ICU, and ED throughout southern California. Ala exercises sustainable practices, enjoys hiking with her family, and became a cat person in 2021.

Jacqueline Iseri, MSN RNC-NIC is the nurse manager of the Neonatal Intensive Care Unit. She began her nursing career at UCSD Health in 2011 as a NICU new graduate prior to transitioning into leadership in 2015. In 2021, she was awarded overall nurse leader of the year. Jackie enjoys quality improvement, gel pens and PowerPoint.

Being on the frontlines of the COVID-19 pandemic brought unique challenges and innovations for the UC San Diego Health (UCSDH) Women and Infants departments. While many service lines canceled procedures and reduced clinic visits at the beginning of the pandemic, the Women and Infants departments had to remain open and serving patients. As the teams prepared for the inevitable arrival of COVID-19 positive pregnant patients, the Obstetrics (OB) nursing and physician leadership teams started the multidisciplinary OB COVID-19 Taskforce to develop UCSDH policies and guidelines based on early research including the Center for Disease Control (CDC) guidelines and University of Washington policies on pregnant patients with COVID-19. The taskforce was made up of staff from the OB and the Neonatal Intensive Care Unit (NICU)/newborn teams. Unlike most other areas of UCSDH, due to limitations in facilities and resources, the Women and Infants division needed to care for COVID-19 positive patients within the same unit as non-COVID-19 patients. The taskforce created instrumental new workflows to accomplish patient care safely and maintain quality patient outcomes.

Obstetrics

The OB COVID-19 taskforce was spearheaded by staff who served pre-Pandemic on the OB Drill committee. Taskforce members worked tirelessly to answer questions, meet staff needs and disseminate information. Nurses and other interdisciplinary team members kept up to date about the ever-changing COVID-19 practices, policies and protocols and shared information with presentations, educational handouts, and quick huddle pearls during daily rounding on the units. The taskforce developed "COVID Carts" with necessary OB supplies and Personal Protective Equipment (PPE) for the unique population of infectious pregnant COVID-19 patients. The taskforce created interdisciplinary COVID-19

Team members setting up patient movement out of the L&D patient room.

drills to practice transporting patients throughout the hospital, coordinating with the intensive care units (ICUs), operating room (OR), and the NICU. The teams ran logistics drills for high-risk COVID-19 scenarios by practicing donning and doffing PPE, paths of travel, and resuscitation. The taskforce created a COVID-19 Coordinator role to coordinate deliveries off the unit as well as in the L&D OR.

Given the uniqueness and vulnerability of newborn and neonatal patients, we had to develop policies to encompass all scenarios to protect patients and staff from cross-infection. The OB taskforce prepared new COVID-19 guidelines, paths of travel, and patient education for situations such as admitting a known COVID-19 patient from clinic to inpatient, managing a pregnant patient with COVID-19 in the OR, how to transport a COVID-19 patient for an emergent Cesarean section, neonatal resuscitation of a COVID-19 positive patient in the NICU, room cohorting the positive mother and negative baby, and caring for a newborn and breastfeeding when COVID-19 positive.

Neonatal Intensive Care Unit/ Newborn

The NICU team established three guiding philosophies: Maintain staff safety, continue providing safe care to infants and use resources as necessary, but thoughtfully. These three goals served as a compass to facilitate decision-making each time a new scenario or problem presented.

There was no doubt that everything nurses had learned about infection prevention, use of resources, change management and teamwork would be tested in new ways during the pandemic. NICU nurses relied on these foundations and layered on COVID-19 specific information obtained from subject matter experts and colleagues through California Perinatal Quality Care Collaborative (CPQCC), the American Academy of Pediatrics and the California Department of Public Health. As a pediatric unit within a health system that primarily cares for adult patients, some guidance needed to be modified.

The NICU's existing staff-led Clinical Practice Committee (CPC) focused on areas such as practice changes, supplies and equipment, workflows, staff education and information systems. They were the ideal team to engage in COVID-19 troubleshooting, creative thinking and information dissemination. For example, while the organization was facing a shortage of IV pumps, the NICU's feeding pumps were identified as a back-up opportunity for fluids and medications. CPC worked together to create guidance on syringe and tubing set-ups. The co-chairs became COVID-19 Coordinators in order to train, lead and support the staff.

Each department in the Women and Infants Services division maintains workgroups with leaders and staff

NICU and L&D team members practicing patient flow for COVID positive patients in the L&D OR corridor.

incorporating the full spectrum of service lines. Women and Infant Services relied on bidirectional information cascades to move in a unified direction. OB-specific taskforces to address patient population health problems will remain useful post pandemic. The Women and Infants service line teams developed new skills and unique bonds while working together and were able to innovate solutions when challenges arose. These skills and workflows have been tested as numbers of births continue to increase. In 2020, there were 3773 births delivered at UCSDH. In 2021, the number increased to 4275, an all-time record. This year, the Women and Infants service line is on pace to exceed that record. Maintaining the standards for high-quality care for ever-increasing numbers of patients will require dedication, flexibility, and communication – all skills honed by the pandemic.

OB Drill members talking though Labor and Delivery patient room to L&D OR patient movement. Discussions regarding path of travel, donning, doffing and ensuring all supplies and equipment were in place were integral pieces to practice.

COVID Taskforce practicing newborn transport.

Implementing Telehealth for Oncology Patients

By: Suzanne Agarwal, BSN, RN, MPH
Courtney Nelson, BSN, RN, OCN
Polly D Nobiensky BSN, RN, OCN
Emily Otte, BSN, RN, OCN
Abby Pennington, BSN, RN, OCN
Monette Santos-Moss, MSN, RN, OCN
Mandy Schlichtholz, RN, OCN

Moores Cancer Center (MCC) is a National Cancer Institute-designated Comprehensive Cancer Center with multidisciplinary clinics including medical oncology, radiation oncology, surgical oncology and Blood and Marrow Transplant (BMT). When the COVID-19 pandemic first began, the Moores oncology and BMT clinics quickly implemented several telehealth platforms: phone calls, Doximity, FaceTime and MyChart video visits. While FaceTime and MyChart are familiar to us all, Doximity is an app on the providers phone, that allows for patients to access video calls via text message. The goal of implementing telehealth for oncology patients was to allow for continuity of care by connecting patients with their providers virtually while eliminating the risk of nosocomial COVID-19 exposure or transmission. UC San Diego Health (UCSDH) Telehealth had been implemented previously on a much smaller scale and historically was not reimbursed by insurance companies. However, at the beginning of the pandemic, Congress passed legislation reimbursing Telehealth in acknowledgment that face-to-face medical visits put patients and staff at risk of infection or infecting others. This was first initiated at the beginning of the pandemic through emergency orders, and in January 2021 congress passed "The Ensuring Telehealth Expansion Act", which permanently allowed for telehealth flexibilities in healthcare. Immunocompromised oncology patients are at particularly high risk of COVID-19 infection and transmission. Leveraging telehealth was crucial to safety and continuity of patient care.

Telehealth video visits were implemented very quickly. Over a weekend in March 2020, physicians and clinic leaders were trained in using MyChart Video and Doximity Video applications. They cascaded that information to their teams the following Monday and Telehealth video visits began immediately. Administrative teams helped patients download and use the MyChart application on a smartphone or device and go through the multi-step process to check into the appointment. MyChart video visits allowed clinic nurses to better assess patients and evaluate their understanding during teaching. MyChart messaging also enabled nurses to send patients HIPAA-compliant written instructions and education regarding their treatment plan that was once done in person.

Due to visitor restrictions and the importance of family caregiver education, several Moores oncology clinics implemented telehealth classes to educate patients and their families. BMT coordinators taught educational classes on Zoom for patients getting ready to undergo blood and marrow transplant and their families. The Radiation Oncology department also set up weekly radiation information classes for patients and their families. Use of telehealth education allowed patients and their families to receive valuable information together.

With every innovation, new challenges arise. Telehealth can limit healthcare providers' ability to physically examine patients, take their vital signs, perform skin checks, and assess fall risk and safety. It can also be more difficult to evaluate patients' understanding, establish rapport, and build trust when using telehealth as compared to in-person visits. Having difficult discussions, for example about disease progression or end-of life, can be more challenging and providers may feel less able to comfort patients. There are also some technology-specific difficulties with telehealth. For example, in the Radiation Oncology clinic, about 50% of patients are referred from the Veteran's Administration, Kaiser, or other external providers, so they did not have experience with the MyChart application. For patients needing language assistance, it became more difficult to arrange interpreters or have good audio quality when using an interpreter on a phone or the MARTII interpretation system. Patient access to and familiarity with telehealth technology are not equitable, potentially limiting care for vulnerable populations. Patients unfamiliar with the are often confused by MyChart telehealth video visit directions and check-in process require staff to walk them step-by-step through the process, which is time-consuming. Nurses and providers offer alternate options whenever feasible such as in-person visits, simple phone calls, Doximity video visits and FaceTime to ensure patients get the care they need.

L to R: Suzanne Agarwal, Emily Otte, Courtney Nelson, Amanda Schlichtholz, Monette Santos-Moss, Polly Nobiensky (not pictured: Abby Pennington)

Suzanne Agarwal, BSN, RN, MPH has held various roles at UCSDH since 2004 and began working full time in 2014 for Oncology Services. The pandemic created the opportunity to spend more time with our children having meaningful conversations.

Courtney Nelson, BSN, RN, OCN is the Nurse Supervisor for Encinitas and Vista Oncology Services and has worked at UCSDH for 9 years in oncology. Reflecting on COVID-19, she deeply appreciates her fellow nurses and the hard work and compassion they bring to work every day!

Polly D Nobiensky, BSN, RN, OCN has been a nurse for 19 years and worked for 15 years at UCSDH in Radiation Oncology. Her previous publications focused on lung and prostate cancer. The best part of COVID-19 was it forced her to exercise with her children, and now her son has started to enjoy running!

Emily Otte, BSN, RN, OCN is a Nurse Case Manager at Moores Cancer Center specializing in Lung and Head & Neck Medical Oncology. She has been a nurse for 8 years and with UCSDH for the past 4 years. The pandemic has given her the opportunity to experience working from home. Without the commute and extra travel time, she has been able to spend more quality time with her baby.

Abby Pennington, BSN, RN, OCN has been an RN for 14 years and worked at UCSDH in Radiation Oncology for 6 years. She met the love of her life during COVID-19 and they are now living together!

Monette Santos-Moss, MSN, RN, OCN is the Nurse Manager of Radiation Oncology. She has over 22 years of Oncology Nursing experience and has worked at UCSDH for 12 years. COVID-19 has taught her to cherish the time we get to spend with family and friends when we can.

Mandy Schlichtholz, RN, OCN works in the UCSDH Moores Cancer Center in the Blood and Marrow Transplant Division and has been with UCSDH for 28 years. Her silver lining since COVID-19 is that she has taken up painting!

The use of telehealth taught the Moores Oncology clinics how quickly healthcare providers can adapt to change and how critical technology is to continuity of care for vulnerable patients. Telehealth works well for many patient needs, including reviewing images, follow ups, and urgent consultations. The right blend of telehealth visits to face-to-face visits must be individualized for each patient. Many patients, their families, and caregivers found they preferred the convenience of telehealth visits. Telehealth increases healthcare access for patients who have transportation issues or do not feel well enough to come in person. Many oncology patients who have severe pain and fatigue, and often have multiple appointments per week at different clinics benefited from the change.

Telehealth has positively impacted the way that nurses practice. Nurses have adapted their practice to better connect with and assess patients via telehealth. Through experience, they continue to improve the workflow for patients and staff to make telehealth sustainable and meaningful. They strive to creatively address technology inequities so that more patients have telehealth access. For instance calling a patient's family member, to walk them through adding the MyChart app to a patients phone, or changing their appointment to a Doximity appointment in real time if the patient is struggling with My Chart. Moores Oncology clinics will continue working to ensure that patients and staff have the support they need to quickly troubleshoot technical problems. For patient education, telehealth has become a wonderful tool for nurses to promote active participation by caregivers and family members. In the future, the goal is to offer online patient education classes in multiple languages.

Nurses have recognized that telehealth brings opportunities to enhance patient access to care as well as evolve the nursing profession and this type of health care is here to stay. It is important to rethink and optimize the nursing role in telemedicine. It creates more staffing flexibility in nursing with the opportunity to work remotely, which is a rarity in the nursing field. As telehealth is used more regularly and effectively, it can be used to improve efficiency and healthcare access for patients for the long run. As the world adjusts to post-pandemic life, telehealth can continue to be used to benefit and provide convenience for oncology patients as part of excellent, comprehensive care.

The UCSDH Ancillary Applications Team Steps Up

Author: Kimberly Noumi MSN, RN
Manager, Information Services

During the past decade, technology and digital health have come to the forefront of patient care. One of the best known technological advances in healthcare is the Electronic Medical Record, or EMR,which has many advantages to enhance patient care. For example, the EMR expedites the sharing of information between healthcare providers, organizations, insurance providers, patients, and their families. UC San Diego Health (UCSDH) uses the EPIC EMR system and the patient sharing portal, MyChart - a platform for communicating with the healthcare team and relaying important test results, as well as scheduling of appointments with providers. When the COVID-19 pandemic began, challenges arose for in-person healthcare due to personal protective equipment (PPE) shortages and risk of disease transmission. By incorporating additional technological advances into the EMR and MyChart programs, UCSDH continued to provide safe, quality patient care in the most dire of circumstances.

The Ancillary Applications Team in the Information Services department is responsible for supporting various technology programs and initiatives at UCSDH. Ancillary Applications Team also manages inpatient staff iPhones and patient bedside tablets. Additionally, the team is also responsible for MyChart and UBAR, a one-to-one support application for providers and patients who need assistance using MyChart. Pre-pandemic, MyChart was optional, but since COVID-19 hit, it became a necessity. At the end of Fiscal Year 2020, UCSDH had 526,745 MyChart accounts and at the end of 2021 there were 924,735 MyChart accounts. During this time, it was challenging to meet the demand for the rapid expansion of technology and EMR use and support. However, with the essential support of the Ancillary Applications Team, MyChart continues to evolve: today, it can be used for scheduling appointments, messaging providers, video visits, COVID-19 testing appointments and results, vaccine administration documentation and communication of results, and numerous other patient: provider workflows implemented during the height of the pandemic.

One of the team's biggest achievements for the community was assisting with scheduling for the Petco Vaccination Super Station, which administered 200,000+ vaccines to San Diegans. The biggest challenge for the Ancillary Applications Team was signing up non-UCSDH patients for MyChart so they could schedule their first and second vaccine doses. Multiple MyChart accounts were created for the same patient, necessitating a clean-up of these accounts and purging of thousands of incorrect Medical Record Numbers (MRN). However, without MyChart and the dedication of the Ancillary Applications Team, nowhere near as many San Diegans could have been vaccinated in such a short time frame.

Kimberly Noumi, MSN, RN has been with UCSDH for almost seven years. She began her career at UCSDH on 5 West as a bedside RN, transitioning to a leadership position as an Assistant Nurse Manager on Thornton 2 East. Her passion for telehealth and innovation compelled her to continue her nursing career in a role within the Information Services team, as the manager of Ancillary Application, where she continues to advocate on the behalf of nurses and patients.

UC MyChart Usage Metris

	Q4 '20	Q1 '21	Q2 '21	Q3 '21	QTD
Total MyChart Users	526,745	732,920	836,409	904,265	924,735
Patients Logged In	275,752	501,851	419,909	405,021	301,933
Non-Patients Logged In	1,824	2,013	2,121	2,619	1,776
Mobile Users Logged In	121,265	187,973	165,996	164,828	123,245
Medical Advice Requests	243,292	321,679	285,826	305,885	100,283
Medication Refill Requests	34,506	36,799	33,988	32,275	12,423
E-Visits Submitted	-	-	-	-	-
Appointment Requests Made Through MyChart	8,259	10,795	9,402	8,993	3,911
History Questionnaires Submitted	19,424	21,230	19,495	23,648	14,910
General Questionnaires Submitted	301,406	333,362	300,018	360,244	148,987
Patient-Entered Clinical Updates	95,047	121,358	99,049	100,062	39,205
Paperless Statements Percentage	9.2 %	10.5 %	11.5 %	12.6 %	13.0 %
Percent of Appointments Scheduled Online	16.7 %	27.4 %	15.1 %	11.3 %	12.9 %

To ensure clinical operations continued during the statewide quarantine shutdown, the Ancillary Applications Team supported UCSDH clinicians by leveraging the technology available to the health system. The team's goal was to support communication and sharing of information to make continuity of care easier for patients and their providers. The MyChart team, Brittany Partridge, Kyle Ficklin-Badaloni, Jeff Engel, and Cobb Vickers, rapidly enhanced the EMR to meet demands. Brittany Partridge, the Virtual Care Technology Lead, was instrumental in setting up a virtual helpdesk and command center to support providers with video visits. This monumental task was accomplished in only three days! Video visits went from around 700 in a year to a record of 119,500 ambulatory video visits in a 5-month period. Eric Boyd, the UCSDH Apple Subject Matter Expert, enabled Zoom to all inpatient bedside tablets, thus providing a platform for patients to feel connected to their loved ones despite visitor restrictions. Ficklin-Badaloni was crucial in repurposing iPads and iPhones for ambulatory providers to conduct video visits without COVID-19 exposure. During these rapid implementation projects, patient satisfaction scores remained within goals. UCSDH also supported the Ancillary Applications Team as they obtained MyChart and EPIC accreditations to become better equipped to support providers and patient care. The team's skills have helped them build enhanced functionality within MyChart to better track quality metrics in order to improve patient care.

In the future, the Ancillary Applications Team plans to expand technology through EPIC and the MyChart applications. Plans include enhancements to MyChart Bedside, patient education, and remote patient monitoring, to name a few. This will require a continued commitment to a collaborative effort with the informatics team and our clinical partners in our pursuit of exceptional patient care.

Surge Education: Embracing Virtual Teaching Methodologies

Amy Kalinowski, MSN, RN, CCRN has been a Registered Nurse for 13 years with Critical Care and Burn Critical Care background and has worked for UC San Diego Health for the last 9 years. She received her Master's Degree in Nursing Education in 2018 from Chamberlain University, and has worked for the Department of Nursing Education, Development and Research for 3 years as a clinical nurse educator.

At the onset of the pandemic, the Education Development and Research (EDR) Department needed to create and deliver an education plan to train non-Intensive Care Unit (ICU) nurses to care for ICU patients in the event of a surge of COVID-19 patients, when census would exceed capacity. Due to physical distancing limitations and stay-at-home orders, a Surge Education Team comprised of Nurse Educators and Clinical Nurse Specialists from EDR was formed to develop virtual training in addition to hands-on training. In total, 330 nurses were given ICU surge training over a 6-month period.

In developing the education plan, the team needed to take into consideration the high volume of education required, number of nurses needing to be trained, limitations on physical gathering, and short timeframe in which to complete the training. ICU surge training had to include many topics including medication administration, equipment, charting, protocols, and, most notably, ventilator management. Strict social distancing policies limited in-person classroom sizes to no more than a handful of people in one room at the same time. Finally, as many nurses as possible needed to be prepared to meet predicted surges in patient census and acuity, even amidst the uncertainty of when or how severe that surge would be.

The Surge Education Team developed a mixed-method approach to virtual training to meet the learning objectives while offering sufficient in-person learning opportunities to reinforce key concepts. A supplemental one-hour virtual Zoom session was created to include information on COVID-19, ARDS, and ventilation theory. In addition, it covered common therapies used to treat COVID-19 and UC San Diego Health (UCSDH) protocols for ventilator patients. This Zoom session was widely attended and well-received as a training resource for staff. During the class, nurses' knowledge was tested utilizing questions with the virtual audience participation tool Poll Everywhere. The polling tool encouraged audience participation in a virtual setting and offered validation that the content was understood.

Ventilator training in particular presented one of the most significant learning needs for nurses. During the initial phases of the pandemic, many companies such as American Association of Critical Care Nurses (AACN) and OPENPediatrics developed and offered their virtual training interfaces free of charge to support healthcare training during the pandemic. These resources were evaluated and incorporated in the Surge Education Team's curriculum. AACN offered an array of ICU training modules and COVID education, and the company OPENPediatrics supplied a robust ventilator simulator. The class used case studies with the ventilator simulator that allowed attendees to troubleshoot common ventilator problems and situations. The team was also able to supplement and reinforce critical patient care scenarios using the virtual ventilator simulator.

Developing and teaching virtual education required the Surge Education Team who delivered the content and moderated the online

course to be proficient in using the ventilator simulator, Zoom, and Poll Everywhere simultaneously. The Surge Education Team created step-by-step teaching guides to ensure standardization and consistency in the education delivered by 7 different individual instructors. Along with developing proficiency in utilizing these virtual platforms, educators also needed to learn how to engage staff with varying levels of technological competency and with differing learning styles in a virtual learning environment.

Using virtual learning allowed the EDR department to offer high quality education and continue critical programs throughout the pandemic. While the learning curve was steep, this experience has widened the tools and skills available to offer education even in the most challenging times. Innovation and continuous improvement of virtual platforms and technological resources allow for education to be delivered in a hybrid model of self-learning modules, online learning environments and in-person hands-on training. Utilizing virtual tools to enhance and expand learning is now a staple in the EDR department and has improved the ability to offer more opportunities for education to a larger number of staff to meet demands.

The Nursing Education Development and Research Department team members that created and implemented the Surge Training Education program include:

Rahel Bahru, MSN, CNE
Stacie Banister, MSN, RN
Nicole Batchelder, RN, MSN, CNL, CCRN
Khrizna Chong, MSN, RN, CCRN, CSC-CMC
Jessica Corley, MSN, RN, CNS, AGCNS-BC
Julie DeVaney, MSN, RN, CNS, ACCNS-AG
Laura Dibsie, MSN, RN, CNS, CCRN
Jennifer Garner, MSN, RN, CCRN
Amy Kalinowski, MSN, RN, CCRN
Summer Kirtley, MSN, RNC-NIC, CPNP-PC
Francesca Novelli, MSN, RN, CCRN
Ricardo Padilla, PhD, RN, CCRN
Daniel Pollack, MSN, APRN, ACCNS-AG, CCRN
Aran Tavakoli, MSN, RN, AOCNS
Sheri Villanueva, BA, RN

Advances in Nursing Practice

Advanced Practice Provider-led COVID-19 Telemedicine and Vaccination at UC San Diego Health's Owen Clinic

By: Ryan Anson NP-c; Aaron Willcott PA-C; Will Toperoff NP-BC; Afsana Karim; Michael Tang, MD; Darcy Wooten MD, MS; J. Tyler Lonergan MD; Laura Bamford MD, MSCE

The Owen Clinic is UC San Diego Health's (UCSDH) medical home for patients with HIV. In March 2020, the clinic adapted its health delivery systems to the emerging COVID-19 pandemic by ensuring continuity of HIV primary care through virtual medicine platforms. Advanced Practice Providers (APPs) include physician assistants and nurse practitioners. Owen Clinic APPs Ryan Anson, Will Toperoff, and Aaron Willcott, along with several physicians, developed an Owen COVID-19 Telemedicine Clinic to provide dedicated telemedicine to Owen Clinic patients with or at risk for SARS-CoV-2 infection. Rapid diagnostic testing, telephone evaluation, home pulse oximetry, monoclonal antibody treatment, and intensive follow-up for patients through video assessments contributed to overall successful health outcomes for our 272 patients diagnosed with this life-threatening virus. Despite the highly vulnerable patient population, only 25 (9%) patients were hospitalized, and 3 died (1%). Owen Clinic was also the first ambulatory clinic within UCSDH to implement on-site COVID-19 vaccines. As a result of these efforts, over 84% of patients at Owen Clinic have been vaccinated to date.

About Owen Clinic

Owen Clinic is the largest and most comprehensive HIV medicine clinic in San Diego, serving over 3,100 patients. In addition to HIV primary care, Owen Clinic provides social work services, HIV prevention resources, substance use disorder treatment, hepatitis C treatment, and gender health care. Owen's clinicians include 14 physicians, most of whom are board-certified infectious disease specialists, 1 physician assistant, 5 nurse practitioners, 2 psychiatrists, 3 clinical pharmacists, and 2 licensed clinical social workers. A full-time behavioral/substance abuse counselor, 3 registered nurses (RNs), and 6 licensed vocational nurses (LVNs) also work at the clinic. Our clinicians collaborate closely to deliver full-spectrum HIV specialty care, internal medicine, multi-modal interventions for substance use disorders, hepatitis C treatment, and pre-exposure prophylaxis (PrEP) for patients at high risk for HIV acquisition. Owen Clinic is a unique, interdisciplinary team that supports a diverse and vulnerable safety-net population.

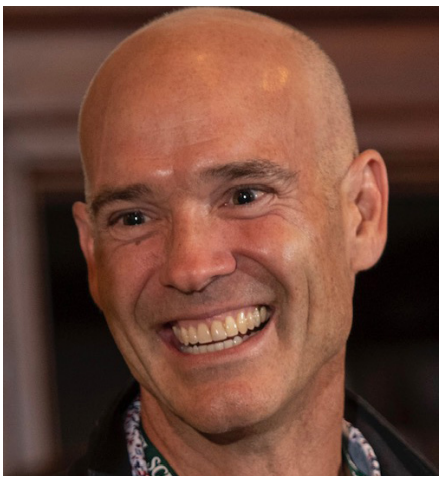
COVID-19 and Adoption of Telemedicine

When SARS-CoV-2 first spread across China, Europe, and then the United States, its impact on people with HIV (PWH) was not fully known. Experts initially observed that COVID-19 did not lead to higher rates of hospitalization, need for mechanical ventilation, or death in PWH compared to people without HIV [1-2]. Subsequent research led to equivocal conclusions, with some studies suggesting worse outcomes for PWH depending on their immune status or comorbid medical conditions 3-7. It is clear, however, that the unparalleled disruption of comprehensive services beginning in March 2020 presented unique challenges to a population already often struggling with homelessness, mental illness, food insecurity, and substance use [8]. In an anonymous survey of 781 PWH in San Diego, 37% of respondents reported chronic mental illness, 41% reported active substance use, and 25% reported being unstably housed or homeless[9].

Prior to the start of the pandemic, Owen Clinic had not been routinely using telemedicine. Telemedicine functioned as an effective clinical intervention that addressed many of these gaps in care and psychosocial concerns 10. Telemedicine, the use of information and communications technology to deliver digital healthcare services, was quickly embraced by clinics, hospitals, and insurance payers as COVID-19 began aggressively circulating around the world [11,12,13].

As cases in San Diego rose in the summer of 2020, several Advanced Practice Providers (APPs) at Owen Clinic took the lead in utilizing this nascent technology to deliver both COVID-19 care and HIV primary care. Billable virtual encounters allowed clinicians to evaluate and treat their patients remotely. Providers called patients or logged into MyChart video sessions through Epic (the electronic health record utilized at UCSDH) on a daily basis to assess individuals with worsening cough, fatigue, shortness of breath or who were otherwise suspected of having COVID-19 complications. APPs partnered with Owen triage nurses to implement PCR testing for patients who reported symptoms

Ryan Anson, NP-c is a board-certified nurse practitioner who provides primary care and sexual health services at the Owen Clinic for PWH or who are at risk for HIV infection. He earned his master's degree in adult-gerontology advance practice nursing in 2015, with minors in HIV/AIDS and psychiatric care at UC San Francisco. Anson is certified by the American Association of Nurse Practitioners (AANP) and the American Academy of HIV Medicine (AAHIVS). Prior to becoming a NP, he traveled the world as a freelance photojournalist for eleven years, covering political, cultural and social issues in North America, Southeast Asia and sub-Saharan Africa for TIME, The New York Times, The Washington Post, Bloomberg News, the Pulitzer Center, and Agence-France Presse.



Tyler Lonergan, MD is a graduate UCSD's internal medicine residency program and member of the Owen Clinic faculty since 1997.

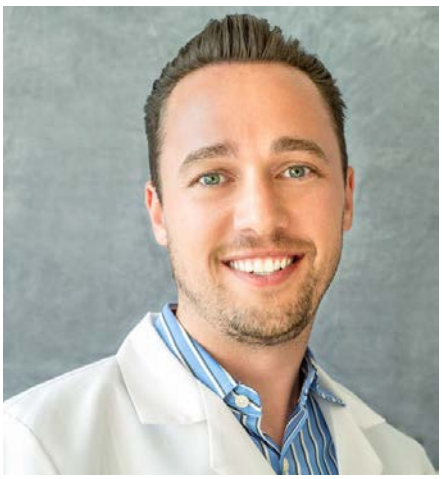
consistent with COVID-19. Virtual visits, combined with the test-based approach from nursing triage, likely reduced the risk of viral transmission within the healthcare setting and the broader community because it prevented patients from needing to enter the clinic for care [13,14].

Owen Clinic's digital healthcare modality evolved as a highly effective clinical management tool during subsequent COVID-19 case surges in late 2020 and through 2021. Nurse Practitioner Ryan Anson expanded the effort to deliver COVID-19 telehealth to hundreds more patients as new diagnoses quickly grew over the 2020 winter holiday season. Outreach involved daily phone check-ins by LVNs and MyChart video visits with providers. The most acute patients received weekend telephone check-ins by on-call physician and at least two or three detailed, virtual appointments within the first one to seven days of symptom-onset. With the introduction of home-based pulse oximetry by August 2020 using CARES Act funds, Owen Clinic APPs obtained objective data through which to assess adequate oxygen saturation. Access to this data greatly enhanced clinical decision-making during telemedicine visits, particularly when triaging to an emergency level of care [15].

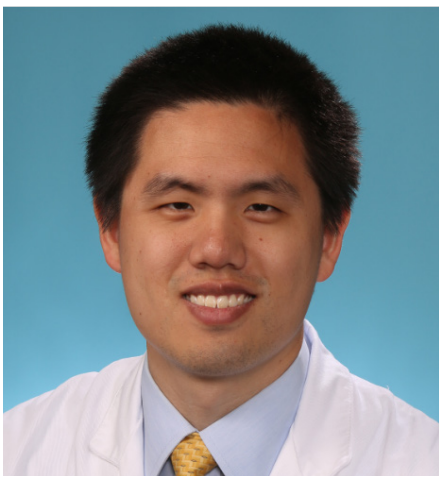
For patients diagnosed with COVID-19 in the outpatient setting, intravenous monoclonal antibody (mAb) therapy had become the standard of care by November 2020. APPs initially referred patients to UCSDH's Infectious Diseases Clinic which ordered mAbs for patients not requiring hospitalization or supplemental oxygen. However, during the summer 2021 COVID-19 surge, Infectious Diseases physicians trained Nurse Practitioners Ryan Anson and Will Toperoff on protocols to order and coordinate mAb infusion for Owen Clinic patients. Both APPs are now the only providers at Owen Clinic routinely ordering this highly effective treatment for their patient population. The dual-agent monoclonal antibodies such as casirivimab/imdevimab have been found in clinical trials to greatly reduce the risk of COVID-related hospitalization and death 16.

COVID-19 prevalence as well as COVID-19-related morbidity and mortality at Owen Clinic have remained low. Between March 1, 2020 and November 30, 2021, 272 out of 3,177 patients (9%) had a positive COVID-19 PCR test. More than 2,291 (72%) unique patients have been screened during that same timeframe. From March 2020 through February 2021, 25 Owen patients were admitted (9% of all positive cases), and 3 (1% of all positive cases) died. While rates of hospitalization and death were not higher among PWH, this patient population was more than three times as likely to test positive for COVID-19 than individuals without diagnosed HIV at UCSDH and may be at an ongoing, higher risk for coronavirus infection 17. Although Owen sample of COVID-19-infected patients was small and no comparison group was studied, dedicated telemedicine, along with home pulse oximetry monitoring and direct access to monoclonal antibody therapies may have prevented higher morbidity and mortality among the clinic's patients.

Laura Bamford, MD, MSCE is an Associate Professor of Medicine in the Division of Infectious Diseases and Global Public Health at UCSD. She is the Medical Director of the UCSDH Owen Clinic and the Co-Director of the Clinical Investigation Core for the San Diego Center for AIDS Research. Her clinical and research interests include HIV and HCV treatment and prevention in individuals with a history substance use and injection drug use. She is passionate about the delivery of patient-centered care with a harm reduction approach. Her interests outside of work include spending time with her family learning to surf, biking, hiking, skiing, and traveling.



Aaron Willcott, PA-C has been a Physician Assistant for 12 years, spending the past 10 as a primary care provider at Owen Clinic. He has clinical experience in global public health initiatives across the United States, Haiti, Kenya and delivers binational support for people living with HIV in Mexico through Agencia Familiar Binacional (AFABI). He is the Population Health lead for Owen Clinic and participates in the PRIME and Wellness Primary Prevention Quality Committees helping to prevent disease for thousands of patients at UCSD. Mr. Willcott sits on the board of directors for Being Alive, the Interdisciplinary Practice Committee, the UCSD PrEP Taskforce and guest lectures for the UCSD School Of Medicine and PAs For Global Public Health.



Michael Tang MD came to UC San Diego for his Infectious Diseases Fellowship training in 2018. Since 2019, he has been working at the Owen Clinic for his HIV continuity clinic. Outside of his clinical work, he is interested in HIV epidemiology, methods for estimating incidence and the impact of HIV status on COVID-19 outcomes.

In addition to COVID-19 care, virtual medical services enhanced appointment access for this marginalized population and cut down on missed appointments, a trend noted across literature on telemedicine in HIV clinics [18]. Before the emergence of virtual healthcare at Owen, the no-show rate averaged 20% in any month, and was 30% immediately prior to the pandemic's onset. Before March 15, 2020, no phone or video appointments had ever been scheduled. From March 16 through May 20, 2020, more than 85% of visits were conducted through a telemedicine platform. On July 10, 2020, just 11% of patients no-showed to either an in-person, phone, or video appointment. The appointment attendance pattern suggests telemedicine increased access to care during the first five months of the COVID-19 pandemic. The Owen Clinic team is making sustained efforts to close technological barriers for patients who struggle with device- or EHR-navigation.

The move to virtual care also did not substantially impact the proportion of PWH who maintained a suppressed viral load on their antiretroviral therapy (ART). In March 2020, 93% of patients were virally suppressed. Five months into the pandemic, viral suppression remained 93%. By November 2021, 94% of PWH at Owen still had viral loads below the level of detection. Other institutions experienced mixed results in terms of longitudinal viral suppression data during COVID-19. An urban safety-net clinic in San Francisco serving publicly insured patients found 31% higher odds of viral non-suppression, whereas a community health center in Boston saw no change in viral load levels following its transition to telemedicine. [19, 20]

COVID-19 Vaccination at Owen Clinic

In-clinic delivery of COVID-19 vaccinations was a second, important COVID-19 -related initiative. UCSDH first began administering COVID-19 vaccines in December 2020 to the San Diego community in a rapid, efficient, and organized fashion through the rollout of vaccination superstations such as the Petco Park site. This approach allowed for the fast dissemination of vaccines to thousands of high-risk individuals. In the ensuing months, resources for outpatient clinics to connect patients with vaccinations grew. Nurses were able to easily schedule patients at superstation locations and a vaccination tent was erected directly across the street from Owen Clinic on UCSDH's Hillcrest campus.

Despite these efforts, preliminary vaccination rates at Owen Clinic remained low. By the end of June 2021, 45% of Owen Clinic patients had not received their COVID-19 vaccine. Many of these patients were also considered moderately or severely immunocompromised because of low CD4 counts or uncontrolled HIV, putting them at increased risk for worse COVID-19 outcomes. In addition, many patients who received a first dose earlier in the year at other county sites did not follow up at these locations for their second dose.

Owen APPs and the clinic leadership recognized having access to COVID-19 vaccines onsite was critical for this patient population. Owen Clinic operates as a medical home for its vulnerable patients. The clinic has worked hard over the years to decrease psychosocial and physical barriers to care. Many PWH have experienced, and continue to face, HIV-related stigma within the healthcare setting and some are hesitant to access care outside of Owen Clinic. Providers felt that they would be able to leverage the trust and relationships that they had built with patients over the years to provide a safe and supportive environment in which they could answer patients' questions and provide the vaccine.

On June 25, 2021, Aaron Willcott, PA-C, proposed a pilot program for clinic-based COVID-19 vaccine administration. With support from medical director Dr. Laura Bamford, physician leaders at UCSDH, the hospital pharmacy, and the Owen nursing team, staff began administering Pfizer vaccines on July 8, 2021. Owen Clinic's workflow has been expanded to offer any available COVID-19 vaccine for its patients. The results have been dramatic. Over 84% of patients have now completed a mRNA-based COVID-19 vaccination series, or the one-dose Janssen vaccine as of November 30, 2021. The most at-risk patients with severely compromised immune systems had a 15% increase

in vaccine uptake as a result of this initiative.

The rapid transmission of the highly infectious Delta variant in early June 2021 in San Diego County added greater urgency to vaccine roll-out efforts and intensified COVID-19 telemedicine. Since the beginning of widespread Delta transmission, 62 patients at Owen have been diagnosed with COVID-19.53 (85%) of these mostly mild cases have been among vaccinated individuals. Only one patient was hospitalized in the summer of 2021, and none died. When compared with the 9% hospitalization rate seen from March 2020 to February 2021, the vaccination program has been beneficial and seems consistent with previous reports demonstrating strong immune responses to COVID-19 vaccines in PWH [21,22,23,24]. Data on Delta-associated cases, total numbers of tests completed, and positive tests within the larger UCSDH patient population were not available at the time of this article's submission. As new variants appear on the horizon, continued development of vaccination programs to educate and provide vaccination access for vulnerable patients is needed. A vaccine booster effort at Owen Clinic is currently underway.

Conclusion

These two APP-led initiatives demonstrated how innovations in telemedicine, emerging monoclonal antibody therapies, and clinic-based administration of COVID-19 vaccinations within the medical home were effective in treating, monitoring, and preventing complications related to SARS-CoV-2 infection in a high-risk and psychosocially-vulnerable patient population. Routine telemedicine and vaccination services will continue at Owen as long as there is a demand among patients.

These efforts were successful because of the trust and relationships between patients and providers, and maintained the goal of keeping this population safe during a challenging public health crisis. APP advocacy, leadership and patient-centered care are strengths of UC San Diego Health that should be increasingly utilized in all aspects of primary care at Owen Clinic and across the health system.

Will Toperoff, NP-BC is a board-certified family nurse practitioner (FNP-BC) who provides primary and specialized care for individuals living with HIV/AIDS. He earned his doctorate in nursing/community health from Rush University at Rush Medical Center in Chicago, Ill. He earned a bachelor's degree in nursing from Rush University and a bachelor's degree in psychology from the University of Illinois. He is certified by the American Nurses Credentialing Center and has worked in primary care since 1998 and in HIV specialty care since 2003.

Afsana Karim is a program analyst at UCSDH and member of Owen Clinic's Clinical Quality Improvement (CQI) committee. She has generated and analyzed reports for the Owen Clinic's retention in care and quality care measures efforts.

Darcy Wooten, MD is a 6th generation Californian, a mother to a defiant toddler and a partner to a Bourbon Distiller. She is an Associate Professor of Medicine in Infectious Disease (ID) at UCSD, where she serves as the ID Fellowship Program Director. She is also the Director of Education at UCSDH's HIV Clinic and co-directs the doctoring course and problem-based learning course for 1st and 2nd year medical students in the School of Medicine. Her mom, a high school science teacher, is her primary source of inspiration for teaching and learning.

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Nursing Sensitive Indicators During COVID-19

Authors: Jennifer Garner, MSN, RN, CCRN; Julie DeVaney, MSN, APRN, CNS, ACCNS-AG, CCRN, PCCN; Laura Dibsie, MSN, RN; Amy Kalinowski, MSN, RN, CCRN

UC San Diego Health (UCSDH) is compared nationally to other health systems through Vizient, a healthcare performance improvement company which ranks health systems based on their performance and quality data. Nursing quality metrics play a role in these rankings, reflecting nursing's contributions to providing excellent patient care. Nursing sensitive indicators (NSI) measure the quality of nursing care delivered in an acute hospital setting. NSI, also called quality metrics, are reviewed and analyzed with the goal of preventing hospital-acquired injuries and infections. Maintaining NSI excellence requires support for clinical teams and continuous evaluation of processes and outcome measures. Despite NSI rates increasing during the COVID-19 pandemic, UCSDH's Vizient ranking improved to third nationally among 565 academic medical centers in safety, mortality, effectiveness, efficiency, and patient centeredness. This reflects how UCSDH handled the challenges to patient safety brought on by the pandemic,and resulted in UCSDH being named "one the safest health care systems in the nation."

NSI outcomes of care were challenged by the pandemic, but the UCSDH team rose to the occasion. During the pandemic, solutions to barriers in providing nursing care were found at the bedside. Clinical teams remain the eyes, ears, and hands of quality. NSI outcomes and nationally benchmarked data are posted on the Nursing Resource Hub and updated quarterly making this information easily accessible to all frontline staff. The Quality and Patient Safety (QPS) department also made internal NSI and iReport data available to all nurses. This transparency allows nurses to easily access the outcomes of their work, appropriately target improvement projects, and celebrate when goals are met or/and exceeded as well.

Patient care during the COVID-19 pandemic created unprecedented challenges for nursing care, including resource and supply shortages, understaffing, and constantly evolving or changing clinical practice for patients with a new illness. Initially, when uncertainty about the transmission of COVID-19, coupled with the necessity of preserving personal protective equipment (PPE), safeguarding personal and patient safety created challenges for nurses and other team members. Nurse leaders and NSI teams were tasked with the preparation and education of team members to maintain excellence in nursing outcomes while caring for a new population of patients and keeping themselves safe. UCSDH nurses implemented unique interventions to maintain quality care and support each type of NSI event.

Catheter Associated Urinary Tract Infections (CAUTI)

Nurses addressed increasing CAUTI rates through the multidisciplinary work of the CAUTI Task Force. The CAUTI Task Force, which never paused despite the pandemic's competing needs, identified two themes that accompanied a rise in CAUTI rates in 2020: improper sampling and non-ideal insertion practices. The Information Services team partnered with nursing to leverage Epic to improve CAUTI outcomes. Sampling alerts, a catheter insertion task and insertion documentation updates put current guidelines in the hands of frontline nurses to make real-time improvements in sampling and insertion practice. The task force also identified new urinary management devices to trial. Two new external urinary management products were implemented during the pandemic to reduce the use of indwelling catheters, decreasing the risk of CAUTI through decreased catheter utilization.

Additionally, patients with COVID pneumonia required a nursing intervention called proning, which supported lung function by having the patient lying in a prone position, despite needing mechanical ventilation and other advanced treatments. This new intervention that required a multidisciplinary coordinated effort to log roll the patient and equipment putting them at risk for urine reflux. The development of the Prone Guideline addressed specific

Jennifer Garner, MSN, RN, CCRN serves as the Magnet and Nursing Quality Program Manager and is the co-chair of the CAUTI Prevention Task Force. Jennifer has worked at UC San Diego Health since 2003 in roles including Clinical Nurse and Clinical Nurse Educator."The pandemic has taught me so much about my family. In particular, my daughter has taken on so many responsibilities so my husband and I could stay in the workplace. Her adaptability knows no bounds!"

Laura Dibsie, MSN, RN Assistant Director, Nursing Education Development and Research. Laura has worked at UCSDH since 2001. She worked as a clinical nurse in the surgical ICU and trauma unit at another San Diego hospital for 9 years and a Clinical Nurse Specialist for 6 years. Prior to her current position, she was the CNS for the SICU and has worked closely with the Wound Ostomy nurse team since 2005."I am grateful for the extra family time we spent during the pandemic with our college-age daughters. Having them home for that extra six months was a gift. I am humbled by the dedication of my team and all the clinical team members providing such excellent care through the tumultuous months of COVID."

interventions for prevention of reflux and urinary catheter care.

Central Line Associated Blood Stream Infections (CLABSI)

Patients with COVID-19 brought challenges for CLABSI prevention, particularly for patients who needed to be in the prone position for prolonged periods of time. The Proning Guideline supported a practice to manage dressing integrity of central lines by assuring dressing changes were completed prior to proning patients. Thanks to these interventions, CLABSI rates remained about the same as pre-pandemic numbers.

Non-intubated patients with COVID pneumonia were managed in a systematic way, assuring all equipment needed to manage sterile dressing change, dressing integrity and catheter maintenance were readily available.

Patient Falls

Patient falls increased during the COVID-19 pandemic and fall outcome data was evaluated. The NSI team identified inconsistencies in data between internal and external reporting due to different processes in the reporting of iReport data. The inconsistencies were identified and remedied by incorporating processes to quality check and dual verify reported data. The iReport and data review processes were aligned with Quality and Patient Safety (QPS). Through this partnership, an electronic dashboard was built to generate transparency of this information and help staff identify how, when, where and to whom falls and injuries are occurring. Additionally, the Falls Prevention Committee instituted scheduled reflective practice sessions to identify opportunities for improvement. The committee determined that preventing falls during the COVID-19 pandemic was more challenging because of understaffing, the need to group clinical tasks to preserve PPE and prevent transmission to staff, and the additional time required for donning PPE before entering patient rooms for an increased number of patients with isolation precautions.

Hospital Acquired Pressure Injuries (HAPI)

Proning patients with COVID-19 improved oxygenation and ventilation. Prone positioning is standard of care, especially for the most critically ill COVID-19 patients. At times, patients require prone positioning for 18 hours or greater. While the optimal position to improve blood flow to the lungs and improve oxygenation and ventilation, the prone position is associated with an increase in the number of pressure injuries to the face and chest, areas not typically subjected to this increased force and duration of pressure. Our experience at UCSDH was similar to that reported by our UC partners, and within the nursing literature. Nurses and respiratory therapists worked extremely hard to prevent hospital acquired pressure injuries (HAPI) by adding protection beneath devices and frequent repositioning. HAPI cases were

Article Continues on page 78

Julie DeVaney, MSN, APRN, CNS, ACCNS-AG, CCRN, PCCNserves as a clinical nurse specialist. Julie has worked for UC San Diego Health since 2005 in the role of Clinical Nurse Specialist with the progressive care specialty and is the nursing chair of the CLABSI prevention taskforce."This pandemic has highlighted human kindness and resiliency in all areas of our lives."

Amy Kalinowski, MSN, RN, CCRN has been an RN for 12 years, mostly in critical care nurse. Amy has worked for UCSDH for 9 years and spent the last 3 years with Education Development and Research (EDR) Department. Amy has co-chaired the organizational Fall Prevention Committee since November 2020. COVID has challenged every aspect of life, both professionally and personally, but Christopher Robin said it best, "Always remember you are braver than you believe, stronger than you seem and smarter than you think."

Transitioning to a Virtual Nursing Research Conference: An Example of Enduring Disruptive Change

Authors: Jessie Bejar BSN RN, Lilian Chan MSN RN, and Judy E. Davidson DNP RN

For 12 years the UC San Diego Health (UCSDH) Nursing Research and Evidence-Based Practice (EBP) Council held an annual Nursing Innovation and Inquiry Conference in a hotel setting with between 100 to 200 attendees. Participants were internal and external to the health system. The fee to attend covered the cost of food, hotel facilities, and audiovisual services. Despite restrictions placed on social gatherings due to the pandemic, Council members were determined to recognize nursing advancements and promote achievements in evidence-based practice, quality improvement, and research. They were also committed to preserving the highly praised annual art exhibit, which were composed of translations of research findings into various forms of art created by nurses and others in the local community. Even though all other regional and national conferences were canceled during this time period, the Council transitioned the conference to a virtual platform, which allowed the nursing community to participate in this time-honored tradition. The UCSDH Nursing Research and EBP Council hosted the first virtual conference in July 2020 after only three months of conversion planning. Another virtual conference was held in June 2021.

The conference was transitioned to a virtual platform at a time when most nurses had rarely used virtual technology at a technical level. The biggest challenge with the conversion to a virtual conference was educating nurse presenters on how to record their presentations and utilize Zoom at a sophisticated level as a panelist. Since the presenters needed to learn how to use Zoom in the middle of an extremely stressful pandemic, training needed to be as simple as possible. The presenters were coached using step-by-step instructional videos, one-on-one technical support, and dress rehearsals. During dress rehearsal, all presenters practiced accessing the system, using their microphone and muting, turning on video, optimal lighting, and how to answer audience questions. Although utilizing electronic platforms to host a conference was new to the Council members and most attendees, it proved to be an effective form of showcasing nursing project results, research, art, and achievements.

The three main components of planning a compelling virtual conference include selecting a viable platform to allow for a sizable number of guests, maintaining audience interactivity, and creating connections by pairing prerecorded presentations with live question and answer (Q&A) rounds. The Zoom webinar platform was selected because it allowed sharing recorded presentations with live Q&A. A hyperlinked conference syllabus allowed attendees to read the presenters' work in detail and visualize full page reproductions of artwork accompanied by abstracts. Mentimeter interactive games, polls, and quizzes were used to keep the audience engaged in the conference. Launching the organization's first virtual nursing conference on this scale involved different subspecialties of nursing within UCSDH. The virtual format allowed an increased amount of nurses from more departments than ever to participate. Further, the virtual platform made it possible for nurses to attend for partial credits if they could not attend the entire day, which has never been offered in the past. Finally, coming together to celebrate nursing achievements and advances despite the global pandemic gave UCSDH nurses a deep sense of fulfillment and pride in working at an organization that provides care and specialty services to the community.

The Nursing Research and EBP Council is very proud to be able to provide a platform for nurses to showcase their hard work and pursuit of providing the best care for patients.

Jessica Bejar, BSN, RN, PCCN has worked for UCSDH since 2016 and recently transitioned from progressive care to outpatient palliative radiation oncology. She is originally from the East San Francisco Bay Area and during the pandemic, she has loved having time to garden, cook, and play endless games of fetch with her energetic doodle puppy, Penelope.

Lilian Chan, MSN, RN, PCCN-K
is a Nurse Informaticist for UCSDH's Information Systems department. Lilian has worked for UCSDH since 2017 and initially worked as a clinical nurse on 5 West Trauma PCU for 5West: Trauma PCU. During the COVID-19 pandemic, Lilian enjoys hiking and the beautiful outdoors of San Diego with her two dogs, Tofu and Miso.

Judy E. Davidson, DNP, RN, MCCM, FAAN
serves as nurse scientist for the University of California San Diego Health. In this role she supports nurses with project development, research protocol development, presentation and publication skills.

2021: Conference Medium Vote

Answer	%	Count
Another Virtual Conference	61.42	121
A No Charge Conference on Campus	23.35	46
Move Back to a Hotel with Registration Fee	15.23	30
Total	100	197

The presentations of projects developed during the pandemic was further evidence of the resilient nature of UCSDH nurses. Each presentation was replete with innovative approaches to care, worthy of adoption by others and acknowledgment from peers. In fact, a special session was held so that nurses who had been accepted to speak at other canceled conferences could present their work at the UCSDH conference to preserve the dissemination of new knowledge. Nurse educators from other organizations attended the conference and requested advice from the Council for virtual conversion of their own programs. The method of conference planning and presentation was adopted by the San Diego County-wide Evidence-Based Practice Institute. Since all the presentations were recorded, the Research and EBP Council had a new opportunity to offer access to the conference throughout the year through anon-demand sessions. Nurses can register to watch pre-recorded sessions by the conference panelists on the first day of every month through the internal UCSDH nursing education calendar. Through on-demand access, nurses can view the conference and earn free continuing education credits at their convenience. Lastly, with the success of the transition, and multiple requests for step-by-step instructions on how to replicate the process, a manuscript was prepared and published in Creative Nursing.

Using technology at this level requires time and skill. To sustain the program into the future, the Nursing Research and EBP Council created a permanent Technology Chair position in the Council's elected leadership to facilitate the virtual conference format, as well as other council events. Disruptive innovation is a term used for change caused by necessity. Disruptive innovation can become an enduring change when the new process ends up better than the previous practice. After the virtual conferences in 2020 and 2021, the Nursing Research and EBP Council asked for feedback from participants. Each year, the nurse attendees overwhelmingly voted to keep the virtual format rather than reverting back to an in person conference. Their decision was likely a result of several factors including public health concerns, the convenience of being able to attend from home, the new option of partial continuing education credits, and cost savings. Innovation remains a core value within the UCSDH professional practice model, and the enthusiasm shown for transitioning the conference to a virtual platform was a clear indication that UCSDH nurses truly value evidence-based practice and champion innovation.

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Relocation of IV Pumps During COVID-19 Pandemic to Minimize Room Entry

Authors: Laura Chechel, MSN, CNS, CCRN; Beth Spooner, MSN, RN; Cassia Yi, MSN, CNS

In early 2020, the unknown elements regarding spread and severity of the COVID-19 pandemic caused stress and anxiety amongst the healthcare team at UC San Diego Health (UCSDH). Additional nursing units were asked to care for COVID-19 patients as the number increased. Healthcare providers' risk of exposure and the implications for personal and familial wellbeing were a large source of worry. Nurses are at patients' bedsides frequently and for a longer duration than other healthcare workers; therefore, the shortages of personal protective equipment (PPE) amplified feelings of concern. As a result of the continually changing environment, regulatory bodies waived various requirements (reduced staffing during intubation, reuse of PPE, modification of work areas), and new internal UCSDH policies were developed. Social media became a popular forum for healthcare workers to share new knowledge and ideas about the novel virus. One idea that captured the attention of UCSDH ICU staff was moving the intravenous (IV) pumps outside of the patient rooms by using extension tubing. Photos of this practice idea were shared by hospitals across the country on different social media platforms.

Cassia Yi and Laura Chechel assessed the unit environment, IV pumps, and feasibility of this practice implementation. A practice guideline was developed to move IV pumps outside of the patient rooms. This guideline outlined the need for extension tubing, assessment of the IV with each room entry to ensure safe infusion, and delineated the medications appropriate for this venture. The intent was to reduce room entry frequency by nurses for alarms, IV bag changes, and titrations. We hypothesized hypothesis this practice change would reduce exposure and PPE use. The guideline was sent for approval, where concerns were voiced regarding risk for central line infection, extravasation or infiltration, and necessity. A literature review was performed and the team noted there were no publications on the safety and efficacy of this intervention. Considering the concerns and the lack of literature, this implementation was turned into a quality improvement project. The project was submitted to IRB and was approved.

From April to May of 2020, the IV pumps were moved out of airborne and contact isolation rooms for COVID-19 patients in one 24-bed medical surgical ICU. Nurses were asked to document IV pump interventions and adverse IV events each shift. Adverse IV events included IV infiltration and unintended disconnection. Events were compared between those that occurred with the pump inside the room to those

Laura Chechel, MSN, CNS, CCRN is a Clinical Nurse Specialist and Nurse Manager of the Cardiovascular ICU at UC San Diego Health. She has been a nurse for 18 years and has worked at UCSDH since 2012. Laura obtained her BSN at University of Rhode Island and her MSN at Point Loma Nazarene University. Laura is the Legislative Director of the American Nurses Association\California and Co-Chair of the Racial Injustice and Health Care Disparities committee with the San Diego Chapter of the Association of California Nurse Leaders.

Beth Spooner, MSN, RN is a nurse in the Diabetes and Pregnancy Program. She has been a nurse for 16 years and has been with UCSDH for the past four years. Beth obtained her ADN from Darton College, her BSN and MSN from the University of Texas at Arlington and finished her DNP with an emphasis in Educational Leadership in 2021.

Cassia Yi, MSN, CNS is a Clinical Nurse Specialist and Acute Mechanical Circulatory Support Coordination for UC San Diego Health. She has been a nurse for 16 years and has been at UCSD for 12. Cassia obtained her BSN from Hawaii Pacific University and her MSN at Point Loma Nazarene University. She is the chair of the ECMO committee at UCSDH and is an active AACN and ELSO member.

with the pump outside of the room. A retrospective analysis was also performed to compare the number of Central Line Associated Blood Stream Infections (CLABSI) from the same time period in 2019 to the number of CLABSIs during the intervention period.

During the 6 week intervention period, there was a total of 3,428 interventions to IV pumps located outside of the patient rooms and 5,507 interventions performed to pumps located inside patient room. There were fifteen noted adverse IV events during this time, seven IV tubing disconnections and eight IV infiltrations. Eight of the events occurred with the IV pump at the patient's bedside and two with the IV pump located outside of the room. 5 were of unknown origin. During the intervention period, there were a total of 0.49 CLABSIs per 1,000 patient discharges in the medical surgical ICU studied. During the same period in 2019, there were a total of 1.08 CLABSI per 1,000 patient discharges. Based on the average daily census and the number of responses received, the data showed no increase in adverse IV events or CLABSIs when the IV pump was relocated to outside of the patient room.

PPE donning and doffing were observed and timed. On average, RNs took two minutes to don or doff the required PPE to enter a COVID-19 room. This average was used to calculate a total of 171.4 hours of nursing time saved and exposures inside the room were reduced by 3,428 during the six-week study period. The reduction in use of PPE saved over $7,000 in PPE costs. The cost of the added extension tubing was minimal in comparison at $288 total over 6 weeks. Nurse satisfaction was not evaluated, but during the trial the nurses expressed feeling cared for and gratitude.

The results showed moving IV pumps outside of patient rooms could be executed safely and effectively. As a result of this project, the original guideline was approved for implementation and the practice change was adopted. This practice is still in effect today in the medical-surgical ICU. Other levels of care have expressed interest in implementing this practice and a subsequent project is being considered.

COVID-19 has forced organizations and clinicians to think outside of the norm and use innovative processes to care for a new patient population. Moving IV pumps outside of patient rooms was a disruptive change that effected standard practice and caused a reevaluation of regulatory and infection control practices. This project showed that creative thinking can lead to practical innovations and new best practices that are safe and cost-effective.

UCSDH ECMO During COVID-19

By: Cassia Yi APRN, MSN, CNS, CCRN, Sonovia Mauer RN, BSN, CCRN, Michelle Parrett RN, BSN, CCRN, and Yelena Ignatyeva BS, RN, CCRN

Extracorporeal membrane oxygenation (ECMO) is a life support method to provide cardiovascular and pulmonary support by removing carbon dioxide from the blood and providing oxygen [1]. The use of ECMO increases survivability when applied to patients who fail to improve with conventional ventilatory support [2]. In order to expand ECMO capacity, and due to a national shortage of perfusionists, UC San Diego Health (UCSDH) transitioned to a nurse-run ECMO program in January 2018. Nurse-run ECMO has been demonstrated to be as safe as perfusionist-run ECMO with noninferior survival to discharge (52% vs 27.5%; p =0.279) [3].

During the pandemic, the primary goal of the UCSDH ECMO program was to rapidly increase ECMO capacity to meet the demand for patients with severe COVID-19 acute respiratory distress syndrome (Table 1). Neighboring regions to San Diego were disproportionally impacted by COVID-19 and local hospitals did not have the resources to place or manage patients on ECMO. UCSDH swiftly simplified their ECMO referral process. Any medical provider can request the UCSDH ECMO program to evaluate for ECMO candidacy by completing referral paperwork. Once received, the coordinator organizes a multidisciplinary clinician conference to determine candidacy within 60 minutes. If the patient is an appropriate ECMO candidate, bed and staff availability will be determined.

Many patients met criteria for ECMO support but were too unstable to transfer to an ECMO center. To solve this problem, UCSDH established a mobile ECMO team to reach those patients [5,6]. The mobile ECMO team consists of a cardiothoracic surgeon, pulmonary critical care attending, perfusionist and the ECMO coordinator, a critical care nurse. To prevent strain on the centers visited, the mobile team brings all supplies needed for cannulation, including PPE (personal protective equipment). ECMO cannulas are placed percutaneously at the bedside by ECMO team surgeon using ultrasound guidance. From April 2020 to January 2021, 22 mobile ECMO cannulations from 13 hospitals in southern California were completed [4]. In 2021, an additional 19 patients were placed on ECMO utilizing the mobile ECMO team.

Prior to the COVID-19 pandemic, an ECMO patient was staffed with two nurses. A primary nurse who focuses on traditional patient care, and an ECMO specialist who monitors and manages the ECMO circuit and adjusts the ECMO settings in response to the patients' clinical picture. All ECMO patients at UCSDH were managed in the Cardiovascular Intensive Care Unit (CVCICU). At the onset of the pandemic, all COVID-19-positive

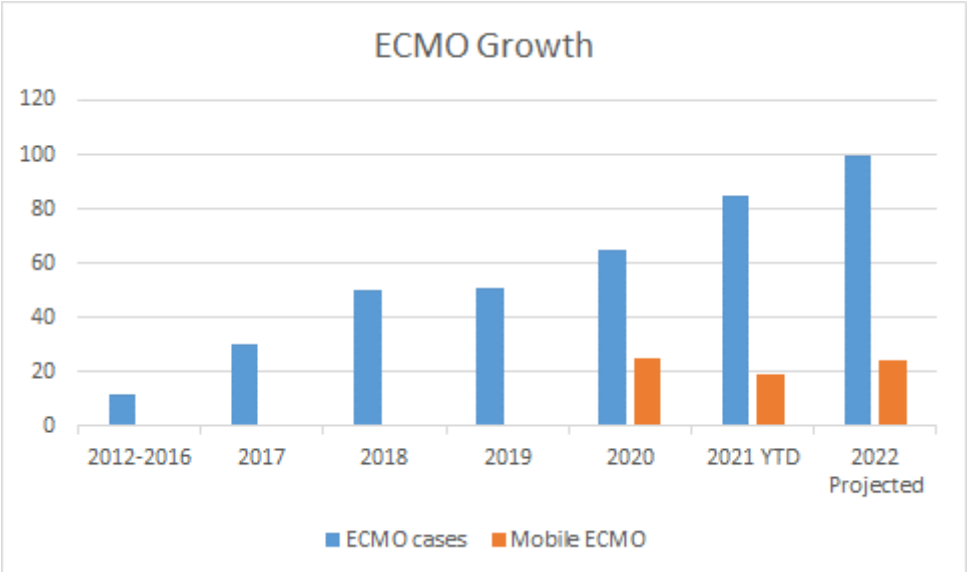


Table 1: UCSDH ECMO Growth graph describing number of ECMO patients per year. From January 1, 2018, through October 28, 2021, the nurse-run ECMO program cared for 236 patients on ECMO. ECMO= Extracorporeal Membrane Oxygenation. Mobile ECMO = UCSDH ECMO team placing a patient on ECMO and transporting them back to UCSDH.

patients that required ICU level of care were cohorted in Jacobs 3GH medical surgical ICU.

Initially, 3GH ICU patients requiring ECMO were cared for by CVCICU nurses as both the primary nurse and ECMO specialist. However, as the COVID-19 ECMO census grew, staffing shortages necessitated 3GH ICU cross training to assume the primary nurse role, allowing the ECMO specialists to manage two ECMO patients at a time. The ECMO program developed a "Care of the ECMO Patient" class through Zoom with simulation videos for the 3GH ICU nurses. As the demand for ECMO continued to increase, it necessitated an increase to a 3:1 patient to ECMO specialist ratio. A temporary ECMO lead role was also developed as a resource to the ECMO specialists. The ECMO lead is staffed 24 hours a day and does not have a patient assignment.

Between April 2020 to January 2022, the ECMO program received over 700 referrals from both regional and out of state hospitals. With the rapid growth experienced by the ECMO program, it was clear that permanent additional resources were needed. The ECMO lead role transformed into a formal leadership position. The ECMO leads continue to act as a resource, and the role has expanded to assisting with bedside and mobile ECMO cannulations, facilitating the ECMO referral process, and participating in ongoing quality improvement and research.

Moving forward, leads will assist the training of new specialists and primary nurses in the management of ECMO patients and provide continuing ECMO education. This will allow UCSDH to not only increase the quantity of patients placed on ECMO but allow for the advancement of clinical care in this high acuity population. Additionally, the ECMO program is strengthening partnerships with other hospitals to help educate medical staff on the early identification of potential ECMO candidates. As ECMO programs start nationwide, medical centers look to our program leaders for guidance. The UCSDH ECMO team has begun education at medical centers around the United States to train their staff to run ECMO and their physicians on the management of this specialized patient population.

Authors left to right: Cassia Yi, Sonovia Mauer, Michelle Parrett, and Yelena Ignatyeva

Cassia Yi, APRN, MSN, CNS, CCRN Acute Mechanical Circulatory Support Program Coordinator. She has 16 years of nursing experience, with 12 at UC San Diego Health. Her silver lining of COVID has been the relationships that she have formed in building the ECMO program. Their program has undergone a tremendous amount of growth in a short and stressful period. It was only possible due to tireless and continuous work of their outstanding team.

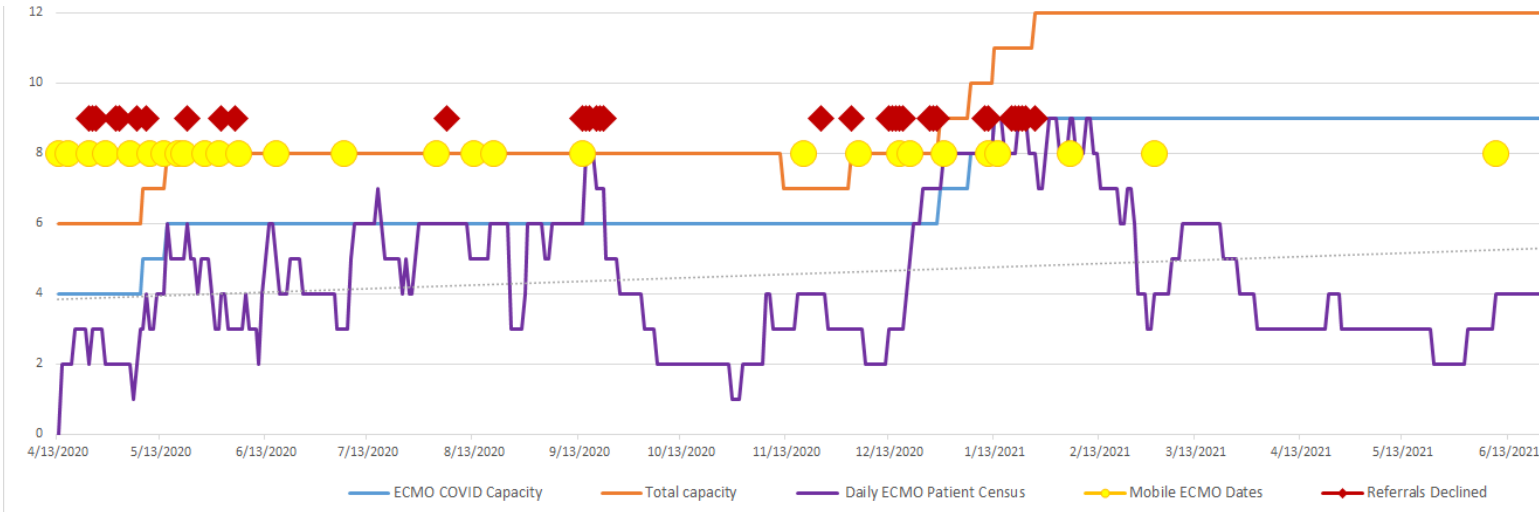
Sonovia Mauer, BSN, RN, CCRN and is an ECMO Lead CVCICU. She has 14 years of experience with3 years at UC San Diego Health. Her silver lining of COVID is that she has been able to form close relationships with her neighbors and all her children learned to ride bikes.

Michelle Parrett, BSN, RN, CCRN is an ECMO Lead CVCICU and a CNIII. She has 11 years of nursing experience with 9 years at UC San Diego Health. Her silver lining of COVID is twofold. Professionally, she has learned so much about the disease process of COVID, the patient population, and how to best care for them. At home, she has enjoyed her husband being able to work from home as their newborn became a toddler.

Yelena Ignatyeva BS, RN, CCRN and has been ECMO lead for CVC/ICU and has 28 years of experience. She has spent the last 13 years with UC San Diego Health and is currently a CNIV. Her silver lining of COVID-19 is her two college kids are spending more time at home. She is happy to have them around a bit longer.

Some of the challenges experienced in caring for the COVID-19 ECMO population are not unique to ECMO patients. Caregivers were faced with PPE and supply shortages, fear of infection from the novel virus, high patient mortality, and staffing shortages which lead to increased burnout. During the pandemic, the mortality rate for ECMO patients in the United States was 45.9% (Odish, Yi, Tainter, et al., 2021). This created an emotional strain for those working closely with the patients at the bedside. Other challenges included adjusting to the frequent changes required by the rapidly growing ECMO program, working in a new environment, and caring for an increased number of highly acute ECMO patients. Meeting these challenges required nurses to display high levels of resiliency, adaptation, and courage.

UCSDH joined the three other ECMO centers in San Diego to create the Southern California ECMO Consortium, a group comprised of physicians and nurse ECMO coordinators (Odish, Yi, Eigner, et al., 2021). Using the "3S System for Surge Capacity", "staff, stuff, and structure", the ECMO program maximized the potential benefit of this scarce resource countywide[4]. Specific criteria were created to determine ECMO candidacy for each of the three ECMO pandemic crisis phases: Conventional, contingency and crisis phases. If a patient met criteria, they would be placed at a center that had capacity. If criteria were not met, exclusion would be applied



March: Start of COVID ECMO Emergency Planning.

March: Creation of San Diego County ECMO Consortium

April 13: First ECMO patient to be cared for outside of CVC ICU.

Primary and ECMO specialists role both staffed with 1:1 ECMO specialist

May 7: Staffing model moved away from ECMO staffing primary RN role

May 7: Cardiohelp borrowed from RCH

July 1: Staffing model opened to ECMO specialist to be specialist and primary role for patients not in isolation

July-Dec: - Primary RN ECMO Training initiated for primary RNs in 3gh and CVC ICU

Nov 15: 3:1 ECMO specailist Trial began

Jan 4: Moved to 3:1 Specialist Ratio

Dec 28: Borrowed Cardiohelp from Radys

Jan 6: Borrowed Cardiohelp from Sharp Chula Vista

May 13 ECMO specailist Staffing model adjusted to 2:1 ratio

March : Initiation of Daily COVID ICU ECMO pre- screening for ECMO.

May 1: Initiation of Daily COVID ICU ECMO screening lists on EPIC

May 15: Rotoflow swapped for Cardiohelp from Scripps

April 23: First Mobile ECMO patient

Dr. Jay Buenaflor: 52 days on ECMO

across all centers. Resources were shared between the three normally competing healthcare systems. ECMO machines could be swapped between centers quickly to maximize capacity. Machines were swapped between centers 30 times as the patient censuses fluctuated. As a result, from March 1 to November 30, 2020, 97 patients were placed on ECMO. Ten referrals were received from outside consortium counties, nine referrals were sent to another center within the consortium due to capacity limitations and one referral was sent to an outside center. No eligible patients were refused ECMO due to a lack of capacity[4]. From March 2020 to November 2020, UCSDH's survival to hospital discharge was 48.5% and increased to 55% from December 2020 to April 2021[3].

The sustainability of the ECMO program post-pandemic is undeniable. The number of patients placed on ECMO has continued to grow[2]. With the Mobile ECMO program, patients who are too unstable to travel can be placed on ECMO at their current facility and transported to UCSDH for higher level of care which was previously thought to be unattainable[5,6]. The advancements made with the program have greatly increased UCSDH's ability to bridge patients to transplant. The consistency of having an ECMO lead as a permanent leadership fixture in-house 24 hours a day allows continued focus on all aspects of the growing program. In addition, ECMO specialists' clinical knowledge has grown dramatically during the pandemic due to the sheer number of hours spent managing this population. They encountered previously unforeseen situations and were able to share their learning experiences with each other in real time and make changes to practice. They adapted to challenges and the ever-changing reality of COVID-19 nursing, which rapidly grew their practices and allowed them to practice

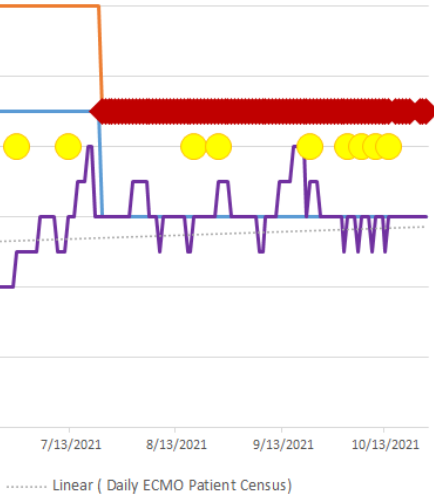


Table 2: This graph depicts ECMO growth specific to COVID-19. The purple line represents the daily ECMO patient census and reflects the COVID-19 surges in San Diego County. The red line represents UCSDH declined referrals of eligible patients due to lack of equipment and staff.

Benjamin Romero survived COVID after 43 days on ECMO.

at the top of their field.

Seeing the growth of the ECMO program has been extremely rewarding. The program has increased from 12 ECMO patients in 2016, to 85 in 2021. The multidisciplinary teamwork throughout the entire progression has been exceptional, and the ECMO team has touched many lives. A mother pregnant with twins was placed on ECMO as she battled against COVID-19 and is now safely home with her babies. A pediatrician who contracted COVID-19 caring for patients was on ECMO for 52 days and is now back home with his children and able to continue practicing medicine. An Uber driver placed on ECMO is now back at work and able to help provide for his family. These are just a few of the patients whose lives were greatly impacted by the ECMO program and continue to be the motivation behind our work.

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A Hybrid Education Model to Deliver Cardiovascular Nursing Education During the COVID-19 Pandemic: A Quality Improvement Study

By: Rahel Bahru, MSN, RN

Khrizna Chong, MSN, RN, CNS, CCRN, CMC-CSC

Daniel Pollack, MSN, APRN, ACCNS-AG, CCRN

Introduction

The coronavirus (COVID-19) pandemic disrupted the traditional in-person training and learning opportunities for new hire nurses. Social distancing requirements were implemented to reduce COVID-19 transmission.[3] Nursing education had to suddenly shift to a virtual format using new techniques to deliver education remotely in an engaging and comprehensive manner.[2] Even during this disruption, orientation for new nurse hires needed to be comprehensive, thorough, multimodal, and use evidence-based nursing practice. Nursing orientation also must validate that newly hired nurses have the knowledge, skills and attitude to be able to provide safe, independent nursing care, a Joint Commission standard.[7]

A combination of asynchronous and synchronous learning methods can be used to deliver education. Asynchronous learning is self-guided education to be completed at the learner's pace and can include reading, watching videos or completing online modules.[8] Synchronous learning provides the learner with education and the opportunity to communicate with the instructor during a specific timeframe.[8] When combined, the asynchronous and synchronous learning methods are called a blended or hybrid classroom.8 Hybrid learning has shown to be effective and beneficial in health professions.[5] The purpose of this project was to deliver high quality, engaging education remotely to newly hired cardiology nurses utilizing asynchronous and synchronous learning techniques while maintaining social distancing.

Background

Newly hired intensive care (ICU) and progressive care (PCU) nurses attend a series of classes called Cardiac Boot Camp facilitated by the Cardiovascular Center Clinical Nurse Specialists (CVC CNS) team. The purpose of Cardiac Boot Camp is to lay the foundation for nurses to provide competent, safe, and knowledgeable nursing care to a variety of cardiac patient populations. It is required that all new nurses attend regardless of

Table 1. Pre-Pandemic Table of Cardiac Boot Camp Class Overview

Cardiac Boot Camp Series		
Class No.	**Class Title**	**Class Topics**
1	Introduction to Hemodynamics	Hemodynamic Concepts, Pressure Line Waveforms (Arterial Blood Pressure & Central Venous Pressure), Pacemaker Concepts, Vasoactive Medications
2	Advanced Hemodynamics Note: Attended by ICU Nurses Only	Hemodynamic Alterations And Derangements, Arterial Derived Hemodynamics, Vasoactive Medication Case Studies, Pacemaker Case Studies, Pulmonary Artery Catheter Waveform Interpretation
3	Myocardial Infarction & Heart Failure	12-Lead Ekg Interpretation, Acute Coronary Syndrome, Arterial Closure Devices, Heart Failure Management, Heart Transplant, Targeted Temperature Management
4	Ventricular Assist Device & CT Surgery	Ventricular Assist Device Review, Heartware & Heartmate Vad Device Review, Cardiac Surgery, Endovascular Aortic Repair, Transcatheter Aortic Valve Replacement, Lumbar Drain
5	Pulmonary	Pulmonary Hypertension, Chronic Thromboembolic Pulmonary Hypertension (Cteph), Pulmonary Thromboendarectomy, Balloon Pulmonary Angioplasty, Prostacyclin Nursing Management, Lung Transplant, Oxygen Management

The CVC CNS Team from left to right: Rahel Bahru, Daniel Pollack, Khrizna Chong

Rahel Bahru, MSN, RN is a Clinical Nurse Educator with Nursing Education, Development & Research. Rahel has worked as a cardiac critical care nurse for 8 years with cardiovascular patients including heart failure, ACS, cardiac surgery and cardiac devices. She has also worked in Cardiac Cath Lab prior transitioning into the Clinical Nurse Educator role. Rahel has worked for UC San Diego for the past 2 years.

Daniel Pollack, MSN, APRN, ACCNS-AG, CCRN is a Clinical Nurse Specialist with Nursing Education, Development & Research. Daniel worked as a critical care nurse for 8 years before becoming a Clinical Nurse Specialist. He has experience working not only with the cardiac patient population, but also neuro, trauma, and general surgical patient populations. Daniel has worked at UC San Diego Health for the past 3 years for the cardiovascular service line.

Khrizna Chong, MSN, RN, CNS, CCRN, CMC-CSC is a Clinical Nurse Specialist with Nursing Education, Development & Researce. Khrizna has worked extensively with cardiovascular patients including heart failure, heart transplants, cardiac surgery and cardiac devices for 17 years as a critical care nurse, then as a Clinical Nurse Specialist. Khrizna has worked for UC San Diego Health for the past 11 years.

their previous experience. Attendees range from new nurse graduates and novice nurses to experienced nurses. Cardiac Boot Camp education topics include cardiac surgery, post pulmonary thromboendarterectomy (PTE), pulmonary hypertension, lung transplant, heart transplant, and ventricular assist devices. Topic speakers include physicians, nurse practitioners, pharmacists, clinical nurse specialists, and clinical nurse educators with expertise in their respective fields. Cardiac Boot Camp consists of 5 classes and typically 3-4 series are held over the course of a calendar year (Table 1).

Prior to the pandemic, each Cardiac Boot Camp class was held in-person for eight hours. The agenda for each class was driven by the required education topics. Cardiac Boot Camp offered didactic and hands-on learning opportunities. Some classes afforded the nurse attendees the opportunity for hands-on skill practice with arterial pressure lines, pulmonary artery catheters, ventricular assist devices, and prostacyclin medication pumps (Table 2).

Table 2. Pre-Pandemic Table of Cardiac Boot Camp Class Overview

Introduction To Hemodynamics Example Agenda		
Topic	**Method Of Education**	**Minutes Allotted**
Welcome & Ice Breaker		15
Cardiac Anatomy & Physiology	Lecture	60
Introduction into Hemodynamics	Lecture	120
Arterial Line Waveforms	Lecture	30
Pulmonary Artery Catheter Management	Lecture	45
Pressure Tubing Review	Skills Practice	30
Pacemakers	Lecture	45
Vasoactive Drug	Lecture	90
Pressure Waveform Review	Case Studies	15

Boot Camp Redesign Objective

On March 19, 2020, the Governor of California issued a stay-at-home order which included closing the hospital to non-clinical staff and ceasing of all in-person events, including education.[1] This prompted a quick transition to provide the entire Spring 2020 Cardiac Boot Camp series virtually. The first online series started on March 24, 2020, and concluded May 18, 2020. All content for the classes in the series was delivered synchronously using Zoom. This method caused numerous challenges. In the virtual environment, the instructors had difficulty gauging participant understanding of the material being taught with the lack of quality eye contact and body language cues. It was anecdotally reported that nurse attendees struggled to maintain attention during class and were hesitant to participate. After this series of classes, a Plan-Do-Study-Act (PDSA) model was utilized to improve the delivery of education while physical distancing requirements were still in place.

Methods

In preparation for the Fall 2020 Cardiac Boot Camp series, the CVC CNS team used the PDSA model (Figures 1 & 2) to develop a hybrid learning model utilizing asynchronous and synchronous learning techniques. The eight-hour course was divided into four hours of asynchronous education and four hours of synchronous learning with the instructor to validate knowledge and answer questions. To build a curriculum for asynchronous learning, the CVC CNS team curated articles, book chapters, and videos for each class topic. The CVC CNS team provided the assigned asynchronous reading and videos to nurse attendees through Microsoft Teams™ in a virtual classroom. The nurse attendees were allotted two weeks before class to review at their own pace.

Attendees were assigned a quiz to test their knowledge of the asynchronous content with a minimum pass rate of 80% to validate knowledge acquisition on the asynchronous education content. Time to complete the asynchronous content was constructed to ensure nurses did not exceed four hours to avoid overtime.

After completing the asynchronous content, the nurses attended a 4-hour class delivered virtually over Zoom (Table 3). The education delivered in these sessions was adapted to emphasize or expand on the asynchronous content. During the synchronous class sessions, the students were able to demonstrate comprehension and application of the content and the instructors were able to evaluate whether learning objectives were met in real time. Since it can be difficult to maintain attention and interest over virtual platforms, the synchronous content was designed to be engaging and participatory. One way that this was achieved was by creating numerous case studies designed to be reviewed in teams and discussed collaboratively. Additional tools like PollEverywhere (polleverywhere.com) and Kahoot! Learning games (kahoot.com) were used to engage with learners and assess understanding.

Results

At the conclusion of each class, attendees evaluated the class based on the established objectives. The attendees scored each objective statement on a 4-point scale from 1 (poor) to 4 (outstanding). The class evaluations in the online hybrid learning series were compared to a pre-pandemic class series in the winter of 2019 to assess if the hybrid class series was still meeting the

Figure 1. PDSA Cycle #1

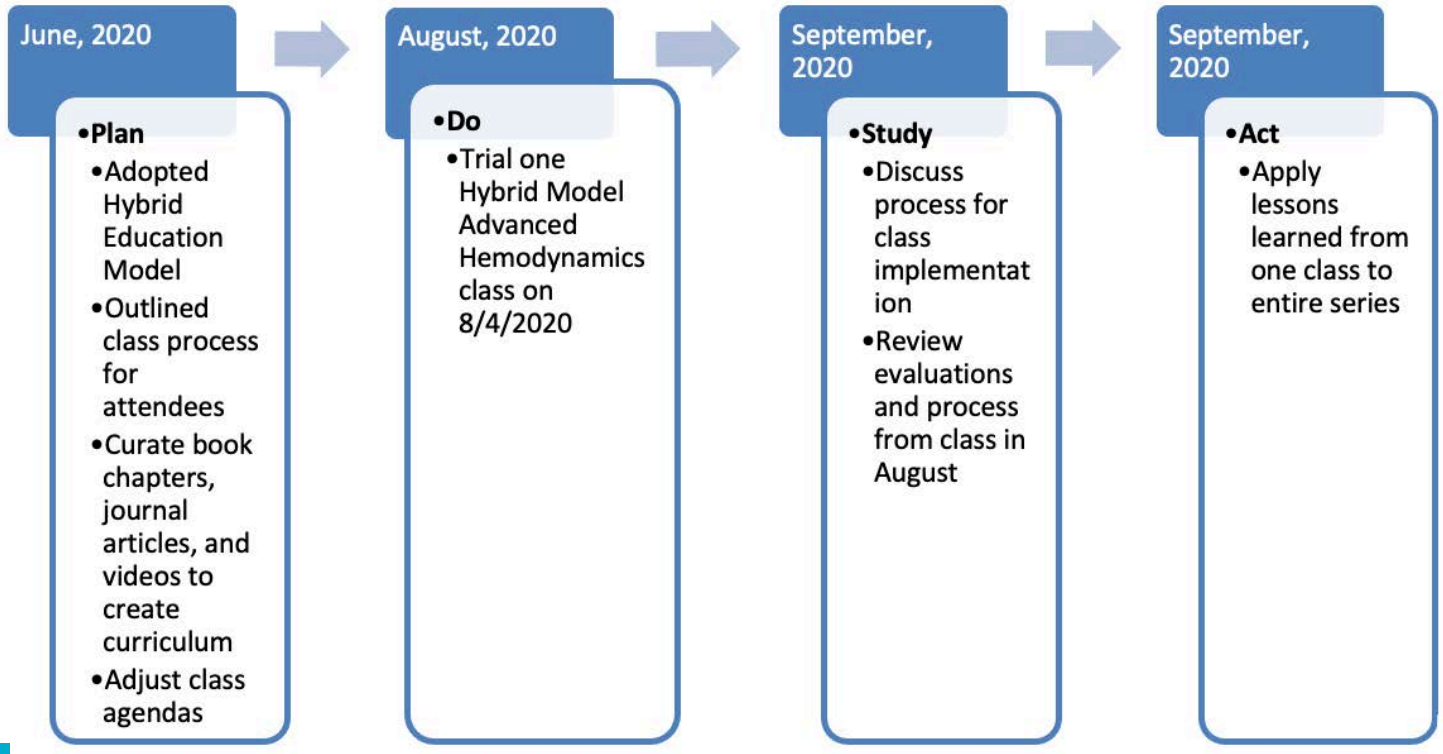


Figure 2. PDSA Cycle #2

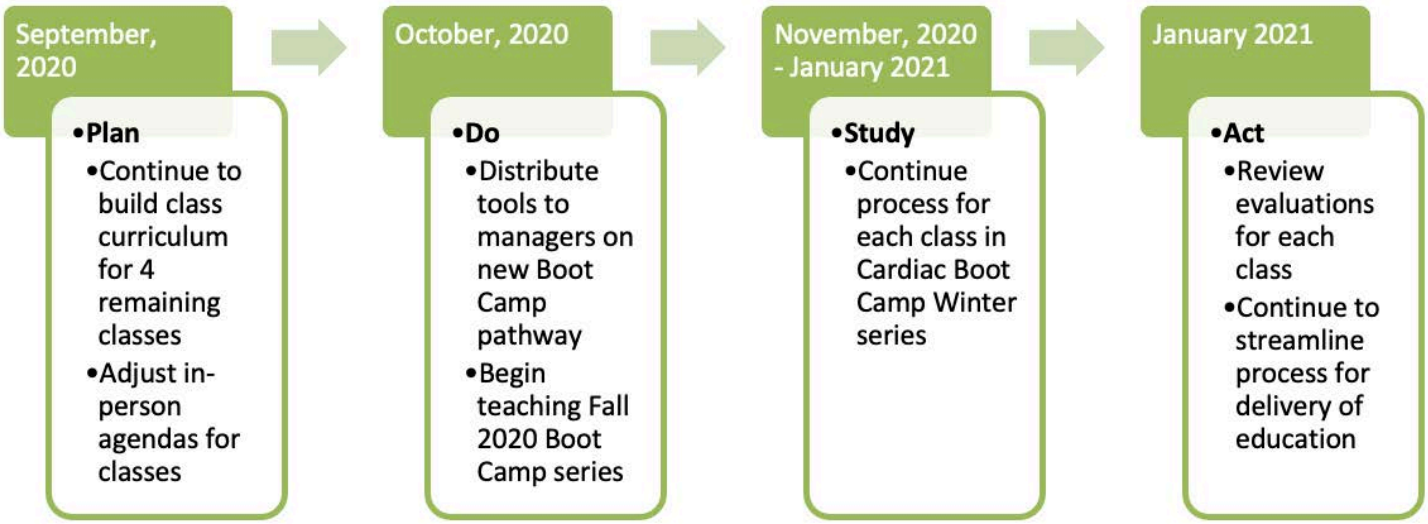
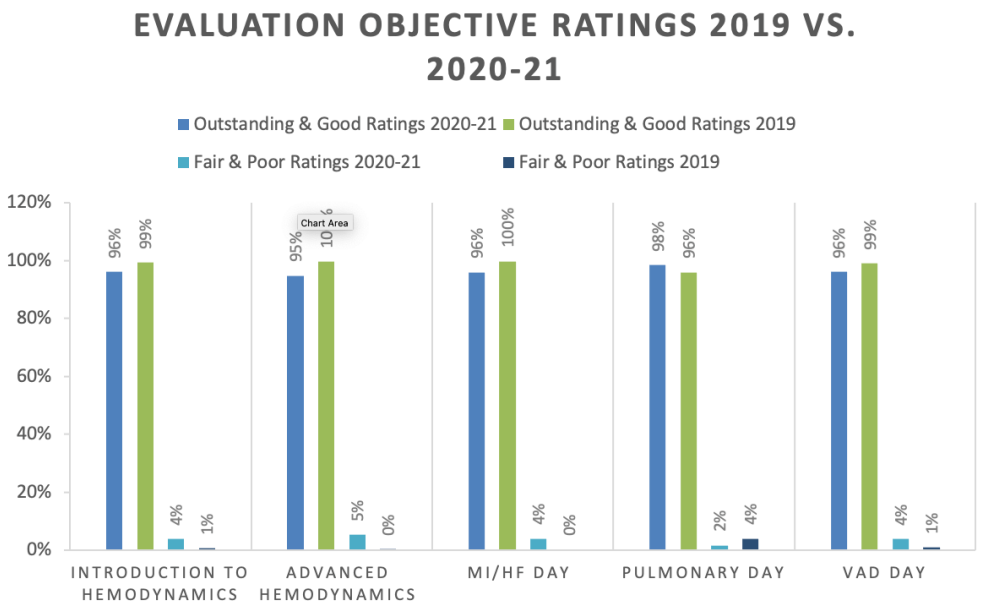


Table 3. Example Post-Pandemic Agenda

Asynchronous Learning For Introduction To Hemodynamics		
Topic	**Readings**	**Videos**
Cardiac Anatomy and Physiology Introduction into Hemodynamics	Book Chapter on Normal Hemodynamics (18 pages) Book Chapter on Neurohormonal Regulation of the Heart (20 pages)	Heart Pumping Video (1 Minute) Cardiac Cycle Video (4 Minutes)
Pressure Waveform Interpretation	Article on Basic Hemodynamic Monitoring (23 pages) Article on Hemodynamic Monitoring with Arterial Lines (12 pages)	Arterial Line Set-Up Video (5 minutes) Arterial Line Calibration Video (4 minutes)
Pacemakers	Article on Temporary Cardiac Pacing (7 pages)	Heart Conduction Review Video (1 minute) Pacemaker Online Module (6 minutes)
Vasoactive Drugs	Book Chapter on Vasopressor Agents (13 pages)	Vasopressor Review Video (24 minutes)
SYNCHRONOUS LEARNING FOR INTRODUCTION TO HEMODYNAMICS		
TOPIC	METHOD OF EDUCATION	MINUTES ALLOTTED
Cardiac Anatomy and Physiology & Introduction into Hemodynamics	Lecture Case Studies	50
Pressure Waveform Interpretation	Lecture	30
Pacemakers	Lecture	45
Vasoactive Drugs	Lecture	45
Case Studies	Case Studies	45

established objectives for the attendees. The number of evaluations completed for the 2019 Cardiac Boot Camp sessions was measured against the number of evaluations for the 2020-21 Cardiac Boot Camp sessions and were relatively similar. The evaluations showed that each pandemic class in 2020-21 series had less outstanding ratings, more good ratings, and more fair ratings compared to the classes from the 2019 series. However, when the total number of outstanding and good ratings were grouped and the total number of fair and poor ratings were grouped, the total percentages of ratings for the classes in the 2020-21 series are very similar to the 2019 series (Figure 3).

Figure 3. Combined Objective Ratings for Cardiac Boot Camp Evaluations



Discussion

During the pandemic, health systems and academic environments had to shift their education to online platforms. Cardiac Boot Camp successfully met its objectives and the needs of the staff during the pandemic. The hybrid learning model allowed learners to remain engaged. Adopting hybrid learning allowed the nurse attendees to gain a base of knowledge during the asynchronous portion of class. This allowed most of the live synchronous time to be devoted to higher order learning through case studies and application of learned material. During the synchronous class session, the instructors could assess if the students were able to demonstrate comprehension and application of the topics. Additionally, through increased engagement, the instructors were able to evaluate whether learning objectives were met in real time and address knowledge gaps. Even though the evaluations for the hybrid Cardiac Boot Camp class series showed a decrease in the number of outstanding scores compared to the traditional model, the asynchronous portion of the hybrid model will likely remain in place because it provides basic knowledge for learners at their own pace and allows lecturers to deliver more advanced content or focus on synthesis and application during the synchronous portion of the class. The hybrid model is also beneficial since it provides a multimodal learning platform to provide new nurses with a variety of education content. The asynchronous curriculum ensures that consistent and updated education is provided to new nurses, avoiding the pitfall of variation in content delivery by numerous instructors.

There are many limitations of comparing hybrid online learning to the traditional eight-hour class. The attendees of the classes were not the same nurses. Attendees of the hybrid model had to adapt quickly to the new online format, and many have never used the online platforms Zoom or Microsoft Teams before. The hybrid model requires the attendees to complete tasks on their own time which requires time, space, technology, and self-motivation compared to passively attending an eight-hour class. The hybrid model also requires attendees to be able to process and learn the education topics from the asynchronous assignments. People have a variety of preferred learning methods, and the needs of attendees may not be met by completing all activities through a screen. Learning materials should be presented to stimulate as many senses as possible to increase the chance of comprehension.[4] The difference in the way the evaluations were provided could have also skewed the results. The evaluations given in the 2019 series were paper evaluations completed at the conclusion of the class and the evaluations provided in the 2020 series were online surveys emailed to each participant.

Conclusion

Based on the results of the class evaluations, in-person traditional learning was preferable to the hybrid model. However, most class participants felt that the objectives were met with a minimum of a good rating. Even though the hybrid model did not illicit the same response as the traditional didactic learning, it allows the learning objectives to be met while maintaining safety during the pandemic.

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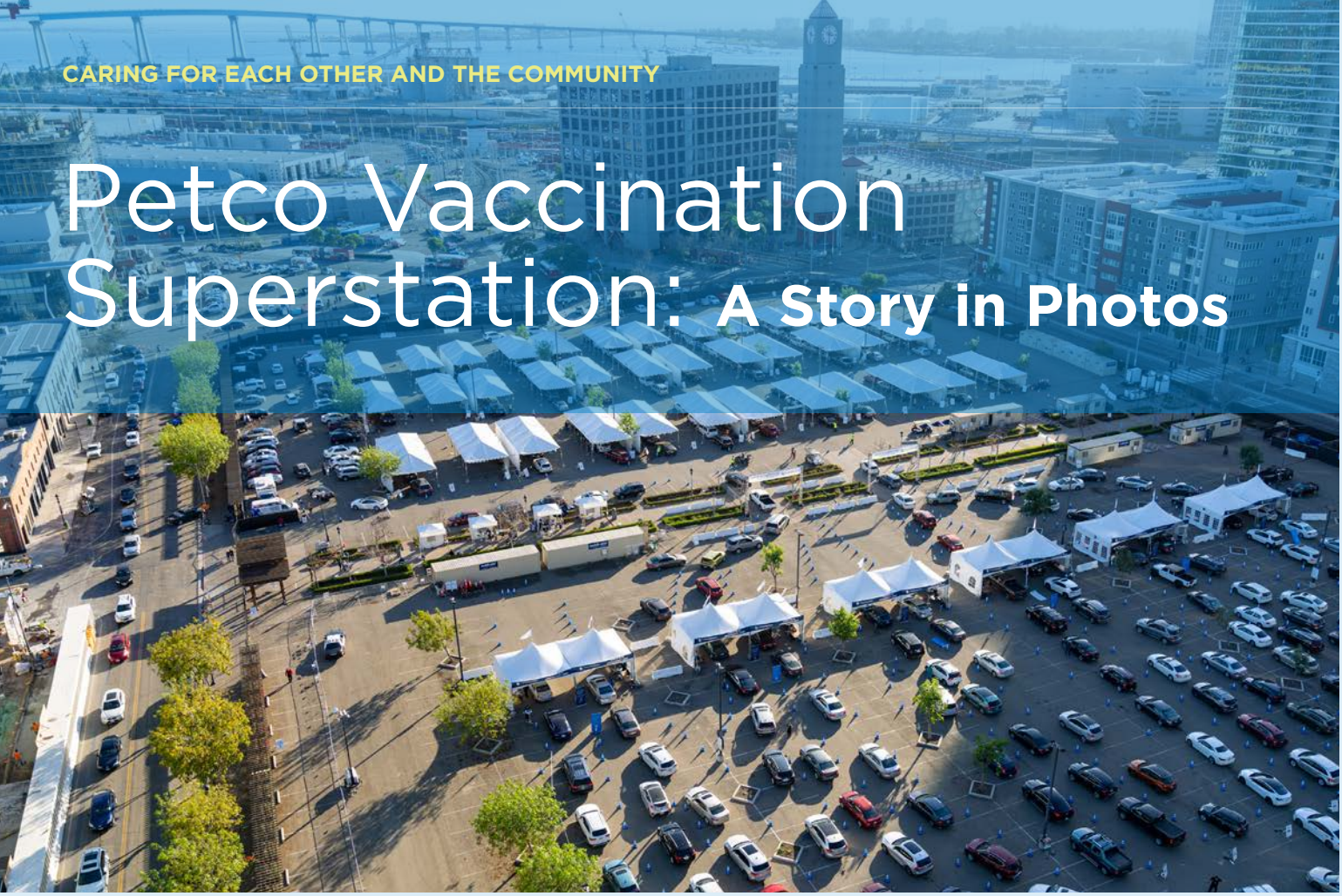
Caring for Each Other and the Community

Petco Vaccination Superstation: A Story in Photos



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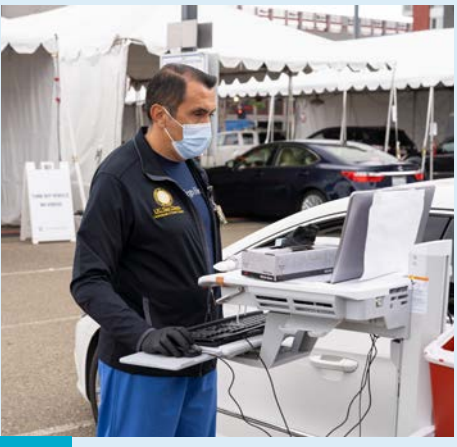
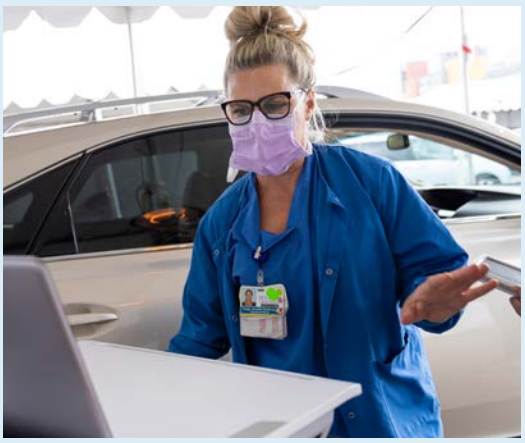
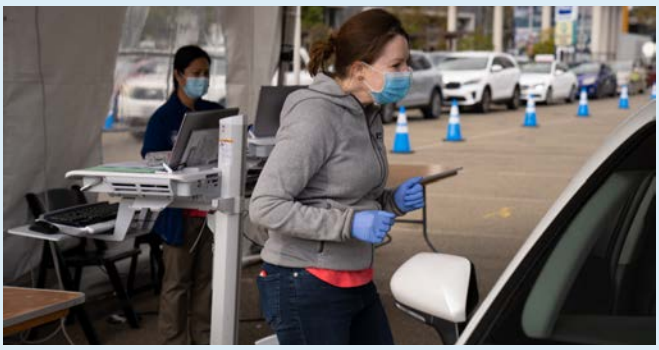


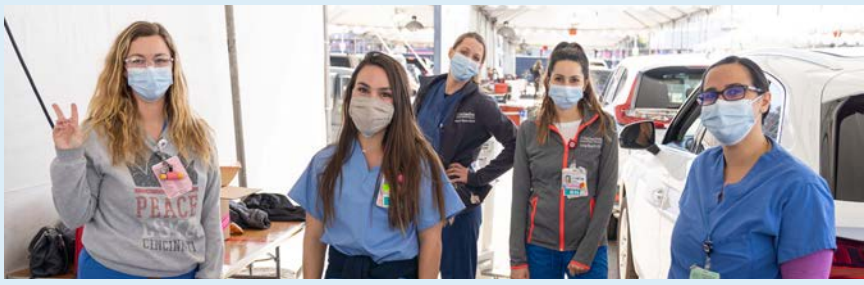





UC San Diego Health
VACCINATOR
Volunteer


You Can Make a Difference
After Vaccination


D. ARAGON


PEACE


COVID-19 VACCINATION
SUPER STATION
UC San Diego Health


UC San Diego Health
COVID-19
VACCINATION
SUPER STATION


UC San Diego
UC San Diego Health
Information Services
Epic Ambulatory SPRINT Team


WE ARE IN THIS
TOGETHER
WE CAN
DO THIS
petco


100000


COVID-19 VACCINATION
SUPER STATION


COVID-19 VACCINATION
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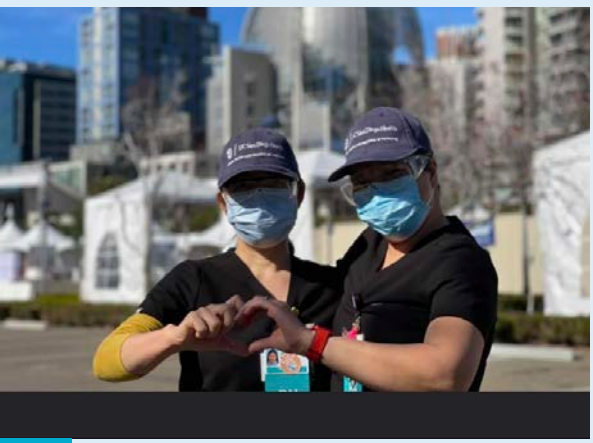

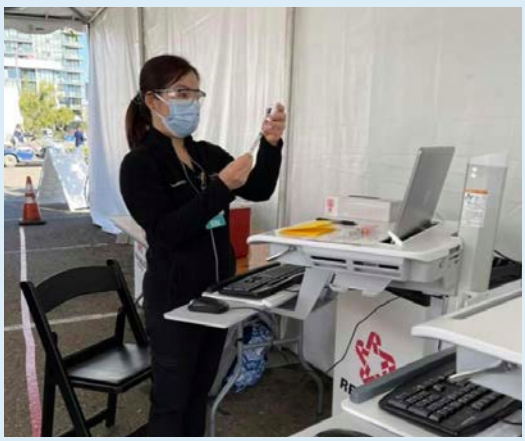


WE ARE IN THIS
TOGETHER
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10000


UC San Diego Health

The Healer Education Assessment and Referral (HEAR) Program During COVID-19

Authors: Courtney Sanchez, LCSW and Rachael Accardi, LMFT

In response to a series of physician suicides, the UC San Diego Health (UCSDH) HEAR Program was born in 2009. Originally geared towards the prevention of suicide specifically in physicians, the program was expanded in 2015 to include nurses and other healthcare employees. Although suicide prevention remains HEAR's main priority, it also focuses on wellness enhancement and burnout prevention using three key strategies. First, proactive outreach via an anonymous, web-based interactive screening and referral program connects the employee with licensed mental health workers. HEAR sends out invitations to take the screening to each UCSDH healthcare worker once a year. Secondly, education for the healthcare community with a focus on self-care, destigmatizing mental health treatment, and providing information about available resources. Finally, the HEAR program supports and cares for UCSDH caregivers through critical incident debriefings and group and individual support interventions.

Early in the pandemic, it became apparent that COVID-19 was going to have a drastic impact on the mental health of healthcare employees. This was emphasized by the suicide of Dr. Lorna Breen, an emergency medicine physician, in April 2020. Dr. Breen was working in New York amid the overwhelming initial surge, contracted COVID-19 herself, and experienced a level of overwork and despondency she had never been through before. Burnout, depression, anxiety, and suicide have become increasingly well-known risks to working in healthcare. Moral injury, increased workloads, and constantly changing information during the pandemic magnified these pre-existing issues and emphasized the importance of providing mental health support to healthcare workers.

Physicians, nurses, and other allied health professionals are at greater risk of suicide and burnout than the general population. They are amazing at taking care of their patients, patient families, and their own loved ones but can develop a level of burnout that is difficult to heal, especially during an ongoing pandemic. The HEAR Program helps healthcare workers navigate the emotional toll caused by COVID-19 by acknowledging the trauma of working in healthcare during a pandemic, providing them with immediate support and connection to referrals to address mental health concerns, and ultimately prevent suicides.

HEAR's strategy to provide mental health care during COVID-19 included more frequent proactive outreach via the Interactive Screening Program (ISP), an anonymous screening service run by the American Foundation for Suicide Prevention. Whereas individual groups (nurses, faculty, trainees, etc.) are usually proactively screened once per year, invitations were sent out every six months and fliers with the website information were posted throughout the hospitals. HEAR provided more education about burnout, depression, anxiety, resilience, and caring for oneself during COVID, while the program increased its debriefing service through the Care for the Caregiver program Weekly staff debriefs were held as well as unit specific debriefs. HEAR provided one-on-one consultations for all faculty and staff who requested further support through their department.

The need for support was immediate. HEAR had spent three years developing relationships within residency training programs, nursing teams, and other departments (chaplaincy, social work, etc.) so people would know who to go to in times of need. When COVID-19 hit, there

Courtney Sanchez, LCSW has a master's degree in social work and has worked as a Licensed Clinical Social Worker for UC San Diego Health since she graduated 6 years ago. She started her career working for the seriously mentally ill and active-duty military populations in Outpatient Psychiatric Services before moving to the Healer Education Assessment and Referral (HEAR) Program. She believes that while COVID-19 has been one of the most trying times healthcare has ever gone through, it has also forced everyone to reevaluate their priorities and relationships in a very meaningful way.

Rachael Accardi, LMFT has a master's in Marriage and Family Therapy and is a licensed Marriage and Family Therapist. She has worked at UCSDH for eight years, and started as therapist for individuals and couples at UCSDH Family Medicine and then transitioned to UCSDH's HEAR Program. She is a HEAR program counselor and takes a trauma-informed approach to care. She holds immense gratitude to those who have allowed her to walk alongside them during some of the most perilous and emotionally burdensome times of their lives. If COVID-19 has shown us anything, it is the importance of remembering mental health is health.

were not enough hours in the day to care to meet the demand for mental health services. Simultaneously, we were trying to prevent burnout within the HEAR program itself because we are not impervious to the stress of the pandemic. It took clear communication, strong boundaries, and a healthy dose of resiliency for the staff of two employees to care for the entire health system.

As a result of providing these services throughout the pandemic, we learned that the stigma of seeking help as a healthcare worker has improved. Increasingly, we note that people will reach out for help if they know where to go. Having an established team is crucial to navigating a crisis. We are deeply humbled to provide care during one of the most trying times of many of our lives. We have watched in awe as many of our colleagues provide compassionate care with determination and grit, despite emotional pain and suffering. We can only hope that the emotional first aid we have provided has been supportive and meaningful.

The HEAR program can be sustained post-pandemic but will need more financial support to meet the increased demand for services. The demand for services rapidly increased in March 2020 and has only continued to grow. We are continuing to proactively screen all health employees, perform research, and advocate for the funding necessary to maintain these critical services. The program received a grant from the UCSD Sanford Institute for Empathy and Compassion and has been able to hire two temporary part-time counselors with the goal of bringing on more full-time staff to meet the demand for these crucial services. HEAR was just awarded the Schwartz Center National Compassionate Caregiver of the Year Award, and we are hoping to use this recognition to draw more attention to the need for mental health support for healthcare workers.

Please know the HEAR Program is available to all UCSDH employees. We hope you begin to reflect upon your own experience in healthcare, both before the pandemic and since. Should you need anything, we encourage you to reach out to us. Our goal is to connect with anyone who is struggling through these impossible conditions, and we want to help. We can be reached at **wellbeing@ucsd.edu**, or via our website: **hear.ucsd.edu**.

SPOTLIGHT ON CARING

UCSDH Walk of Thanks

By Abby Edilloran, BSN, RN, SCRN
3F & 5H Neuro ICU/PCU, Assistant Nurse Manager

One early morning in April 2020, UCSDH team members at the La Jolla campus were greeted with uplifting signs across the parking lot wall. The Campus Point Drive parking lot wall was plastered with posters decorated with words of encouragement for not only doctors and nurses, but also for every other department that plays a crucial role in sustaining the amazing patient care we give every day: respiratory therapy, information services, environmental services, lab, social work, clinical care partners, rehab therapy, and more.

These signs were created in secret by 3F Neuro ICU nurse, Lauren Hoyos and her close friends, who were inspired to create positive signs of encouragement for our frontline team members. It took a while for us to discover the artist who created and hung these signs but we later found out that Lauren was behind this sneaky, thoughtful gesture. To many of those that work with Lauren, this was not a surprise. Lauren is often found going above and beyond to bring light and joy to her co-workers and to her patients.

Refugee and Asylum-Seeking Obstetrical Care Navigation Program

Author: Ala B. Garza , MSN, RN, NEA-BC, Senior Nursing Director, Women & Infants

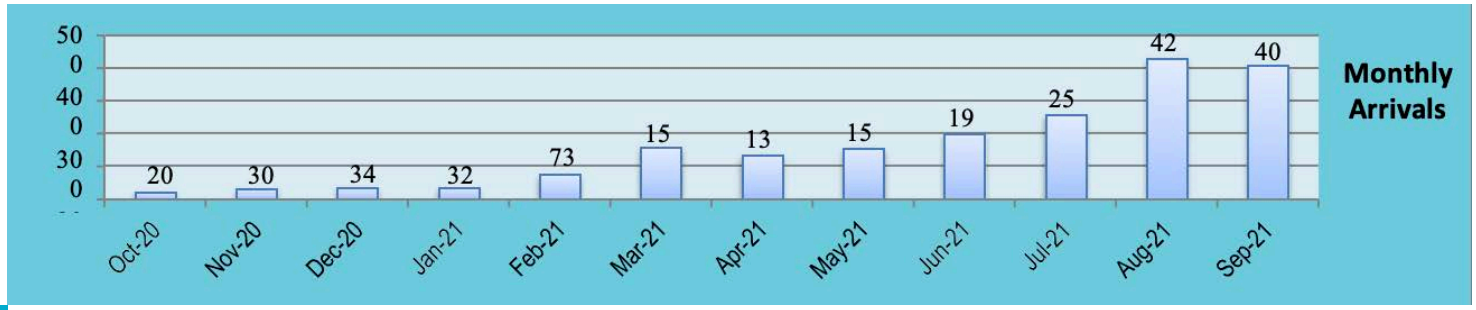
San Diego County's new and resettled refugee population is a large, vulnerable group with a healthcare access gap due to a lack of culturally and linguistically inclusive care. Forced migration across the globe has been at record levels due to war, persecution, political turmoil, and economic instability (Heslehurst et al., 2018). Additionally, the COVID-19 pandemic and border policy management has created concurrent vulnerabilities that further exacerbate health inequities in this population (Willen et al., 2017). U.C. San Diego Health (UCSDH) has been experiencing an influx of pregnant refugees and asylum seekers since January 2021. Challenges with communication, transportation, and follow-up were immediately evident and exacerbated inequities. The Women and Infants service line developed the Refugee and Asylum-Seeking Obstetrical (OB) Care Navigation Program to support pregnant refugees and asylum seekers.

San Diego County has experienced a steady increase in refugee volume beginning in 2021, as shown in the Appendix (Health & Human Services Agency [HHSA], 2021). Similarly, the county data indicates that the two countries of origin with the most new refugees and asylum seekers between October 2020 and August 2021 are Haiti and Afghanistan, with 1,104 and 344 new arrivals, respectively (HHSA, 2021). Overall, California was the top state for resettlement in 2020 for refugees and asylum seekers in the United States and received 10% of the newly arriving refugees. The population of refugees staying in San Diego County accounts for 774,900 people, the ninth highest county population in the United States (Migration Policy Institute [MPI], 2019).

The increase in refugees and asylum-seekers had an immediate and direct effect on the patient population arriving at the obstetrical unit. Forty-nine percent of refugees are women, which has significant implications for perinatal health and birth outcomes (Heslehurst et al., 2018). The interprofessional OB Refugee and Asylum-Seeking Task Force was started in March 2021 to address issues and coordinate action plans for patient management. The task force includes team members from the OB providers and leaders, Risk Management, Interpretation Services, Social Work, Strategy Office, and the School of Medicine's Refugee Health Unit. Two community-based organizations (CBOs) have been integral partners in the development of the program. The CBOs are charitable, local organizations that process as asylum seekers as they arrive in the U.S. and support longer-term refugees who stay locally. Together the CBOs and OB leadership team have organized communications, developed relationships, referred content experts, and established treatment protocols to benefit operations for both teams.

Before the pandemic, the number of refugees or patients seeking asylum seen on L&D averaged one to two patients a month, but increased to three to four a week after January 2021 (UC San Diego Health Strategy Office, 2021). The unique needs, cultural differences, language barriers, psychosocial and physical traumas, and fears associated with a hospital encounter in the U.S. have been challenging for the

San Diego County Resettlement Agencies
Monthly Refugee Arrivals Report For Ffy 20 - 21 By Country Of Origin



Ala Garza, MSN, RN, NE-BC is the senior nursing director for Women and Infants Services. She has over 24 years of experience in various nursing roles, including flight nursing, ICU, and ED throughout southern California. Ala exercises sustainable practices, enjoys hiking with her family, and became a cat person in 2021.

obstetrical team to overcome. The challenges the teams have experienced in caring for migrant patients in the OB department are similar to the evidence in the literature. Utilization and access to perinatal healthcare were found as barriers in all 16 systemic reviews published on this topic. Access barriers most commonly include organizational structural barriers, difficulty navigating health systems, language barriers, and under-established relationships with the healthcare teams. Migrant populations have increased mortality, morbidity, birth abnormalities, and preterm birth compared to host countries but vary based on age, country of origin, and length of local residency. Asylum seekers also have a higher incidence of sexual assault, abortion, and unwanted pregnancies (Heslehurst et al., 2018). Perinatal mental health disorders are a common health concern related to stress, trauma, lack of support, and host country adjustments (Heslehurst et al., 2018).

The Refugee and Asylum Seeking Obstetrical Care Navigation Program's primary focus is to reduce disparities in care by providing on-site support and care navigation to pregnant refugees and asylum seekers. Improving access to care reduces short and long-term inequities in alignment with UCSDH's strategic plan of dismantling structural racism (UC San Diego Health, 2021). Providing a means to connect refugee and asylum-seeking women to perinatal healthcare is an effective intervention to improve the health of women and their infants (Heslehurst et al., 2018). Refugees and asylum seekers need assistance navigating the healthcare environment to include making appointments, arranging transportation, registering for funding, making payments, requesting interpreters, clarifying understanding of conversations, and advocacy (Cheng et al., 2015).

The program adds care navigators to help refugees and asylum-seekers coordinate perinatal care. The care navigators represent the cultures and ethnicities most commonly treated in the OB and neonatal units, including Haitian and Afghan. The care navigators assist with transportation, health literacy, coordination of basic needs, and post-discharge follow-up. The program will also add a social worker to address perinatal mental health and trauma associated with forced migration, and the well-being of the OB staff. The social worker will improve the equity of mental health support, increase referrals to community resources and increase staff support to mitigate burnout. Long term outcomes include avoiding adverse events related to language interpretation and missed care. Through staff education and closed loop feedback from the

SPOTLIGHT ON CARING

Preceptor Popsicles

By Megan Yap and Laura Rossi

Empowering, Inspiring, and Life-changing- these are just some of the adjectives used by students, new hires, and travelers to describe our 1000+ preceptors who continued to teach, support and mentor throughout the height of the pandemic. During COVID-19, it has been difficult to find ways to show appreciation to our preceptors. We feel like we hit the jackpot when we were contacted by Mindy Martin, owner of The Populist, a non-profit, organic and locally sourced popsicle maker dedicated to minimizing food waste.

Due to the pandemic, The Populist received a surplus of donated fresh fruit from local farms that would have been wasted if not immediately used. With Mindy's quick thinking she literally turned lemons into lemonade-popsicles! The Populist team generously donated their delicious creations to our UCSDH Preceptor Committee to give to our incredible Preceptors. Preceptors entering and exiting their shifts at both Hillcrest and La Jolla campuses were treated to grapefruit, strawberry, lemon and grape pops-which were all delish! A sweet way to say thank you for all that you do everyday teaching our new hires.

San Diego Monthly Refugee Arrivals by Month and Country of Origin

Country of Origin	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	FFY Total
Afghanistan	5	11	8	10	6	17	14	6	23	71	173	76	**420**
Angola	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Brazil	-	-	-	1	-	-	-	-	-	-	-	-	**1**
Burma	-	6	-	-	-	-	-	-	-	-	-	3	**9**
Cameron	-	-	-	-	-	-	-	-	-	3	-	-	**3**
Central African Republic	-	-	-	-	-	-	-	-	4	-	-	-	**4**
Cuba	-	-	1	-	4	11	15	5	10	10	4	5	**65**
Czech Republic	-	-	-	-	-	-	-	-	-	-	-	1	**1**
Democratic Republic of Congo	-	-	-	-	-	-	-	4	-	8	-	-	**12**
El Salvador	-	-	-	-	-	-	-	-	-	-	-	4	**4**
Estonia	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Ethiopia	-	-	-	-	-	-	-	-	-	1	-	-	**1**
Guatemala	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Haiti	15	3	16	14	62	121	99	138	146	158	242	243	**1,257**
Iran	-	-	-	-	-	-	2	1	1	-	3	-	**7**
Iraq	-	10	9	-	1	4	1	-	10	3	-	27	**65**
Mexico	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Moldova	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Nepal	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Nicaragua	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Pakistan	-	-	-	-	-	4	3	-	-	-	-	-	**7**
Palestine	-	-	-	-	-	-	-	-	-	-	-	1	**1**
Republic of Congo	-	-	-	-	-	-	-	-	-	-	-	6	**6**
Russia	-	-	-	-	-	-	-	-	-	-	-	-	**0**
Somali	-	-	-	-	-	-	-	-	-	-	2	-	**2**
South Sudan	-	-	-	-	-	-	-	-	-	-	-	4	**4**
Syria	-	-	-	-	-	-	-	-	4	-	4	35	**43**
Ukraine	-	-	-	7	-	-	-	-	-	-	-	-	**7**
Vietnam	-	-	-	-	-	-	-	-	-	1	-	-	**1**
Overall Total	**20**	**30**	**34**	**32**	**73**	**157**	**134**	**154**	**198**	**255**	**428**	**405**	**1,920**
Number of Individuals Eligible for RCA (Single Adults/Couples with no Childrenunder 18)	2	7	1	6	6	18	35	24	40	81	143	113	476
Number of Individuals Eligible forCalWORKs (including children)	18	23	33	26	67	139	99	130	158	174	285	292	1,444
Number of Potential CalWORKs CasesReferred to County	5	6	8	8	23	37	41	37	48	50	68	79	410

Top Three Arrivals for FY 20 - 21	
Haiti	**65%**
Afghanistan	**22%**
Cuba	**3%**
Remainder	**9%**

social worker and navigators, care can be provided with greater sensitivity to cultural norms. Newly arrived asylum seekers and refugees "need culturally and linguistically appropriate support to navigate the health care system, along with the health education directed to their specific health issues" (Saya et al., 2016, p. 28).

Additionally, the program anticipates producing an increase of patients enrolled in emergency or restricted Medi-Cal and an increase in the number of prenatal and postpartum visits attended. In obsterics, refugees and asylum seekers are eligible for either pregnancy-related or emergency Medi-Cal at minimum. Unfortunately, due to the brief opportunities to connect with this population, operational and workflow restrictions, and lack of cultural knowledge, many refugees and asylees were not previously informed of these opportunities for benefited care, and were listed as self-pay. Self-pay patients have added challenges when attempting to schedule appointments. The patient support team follows up to enroll them in the proper funding sources, schedule prenatal and postpartum visits, and help to coordinate services. Closing the gaps in care through patient navigation may improve health, life expectancies, and

birth outcomes while avoiding risk-associated costs through litigation.

To accomplish the short-term goal of closing gaps in care, the most critical resource needed is a team to 1) ensure the refugee is identified early, 2) work to ensure the patient is receiving culturally and linguistically appropriate care, and 3) connect the patient with resources for necessary follow-up for postpartum and newborn care. With dedicated resources, the navigator team uses evidence to support decisions to overcome barriers, close gaps in care, improve financial reimbursement, and expand services.

The Refugee and Asylum-Seeking Obstetrics Care Navigation Team helps UC San Diego Health provide better care for the escalating volume of refugees and asylum seekers. No other organizationally sponsored integrated programs exist in San Diego for refugee populations addressing maternal care and their unique social determinants of health. As San Diego's leader in academic and research-based health care, UC San Diego Health is uniquely positioned to significantly impact the experience of vulnerable populations like refugees and asylum seekers.

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SPOTLIGHT ON CARING

Brew the Love

By Laura Rossi

By Valentine's Day in February 2021, as we had a full year of the pandemic and we found ourselves still in the trenches during another surge. Our healthcare heroes were no longer in panic-mode, they were in major fatigue-mode. It was evident that a "pick-me-up" was needed. In a monthly staff meeting, the Nursing Education, Development and Research Department threw out the question, "What can we do to help?"

The short answer, heard loud and clear from our nurses was, "Bring COFFEE!"

And voilà, Brew the Love and the Brew Crew was born!The program was designed to provide the San Diego community and UCSDH staff, family, and friends an easy way to donate coffee, tea, and snacks to as many UCSDH units as possible. We've all had family, friends and neighbors ask how to contribute and show their gratitude to our frontline service heroes- Brew the Love seemed like the perfect opportunity.

The goal is to create baskets filled with coffee and tea essentials and deliver them to common break areas throughout the UCSDH hospital system, to multiple areas of service. The EDR Team created an Amazon wish list where people could send orders directly to the EDR offices. From there, the Brew Crew created boxes of goodies and delivered them to areas across the health system including a number of off-site clinics, Environmental Services and other service partners. Brew the Love was a huge success thanks to the care and generosity shown by not only the community, but by our UCSDH staff who contributed a great deal. All in all, we delivered gift coffee and goodies to over fifty teams throughout the health system.

Music Therapy During COVID-19

Authors: Ayelet Ruppin-Pham MN, RN, PHNA-BC; Layah Blacksberg BS, MA;

Monica Neslage, MSN, RN; Karen Armenion MSN, RN, CMSRN, NE-BC , Noel Viray, MS, RN, GERO-BC, CHPN

One of the most uplifting moments of the pandemic came from a collaboration between Nursing, Volunteer Services and the nonprofit Project: Music Heals Us (PMHU). Below is an oral history of this incredible project, which brought beautiful music to both patients and staff at a moment when we all needed a little break.

Ayelet Ruppin-Pham (Patient Education Specialist): In summer 2020, I was looking for some way to contribute positively to the units working so hard to care for our patients. Knowing that isolation and loneliness were so prevalent on units due to the many COVID-19 restrictions, I wanted to find a way to provide some human connection and peace. I heard about PMHU through a friend who was volunteering with the nonprofit to provide free concerts for UCLA patients. This organization is comprised of professional classical musicians who were similarly looking for ways to share their gifts and provide positive healing experiences. PMHU were so excited to collaborate in providing music to UCSDH – all we needed to do was find the right process and the right pilot units. I reached out to Volunteer Services next. I had a feeling they would love being involved!

Layah Blacksberg (Director, Experience Operations): The volunteers at UC San Diego Health are in a unique position to offer support to both patients and team members. Volunteer Services engages community members from across San Diego to assist with a variety of non-medical tasks, allowing the clinical team members to focus on providing critical medical care. Project Music Heals Us is another wonderful example of how volunteer support can impact the healing process.

Ayelet: We decided to select two units for the pilot, one in Hillcrest and one in La Jolla. The Hillcrest Eighth Floor and JMC 5FG seemed like the right places to start, because of their unique patient populations and past projects involving complementary therapies.

Monica Neslage (Manager, Hillcrest 8th Floor): When Ayelet and Layah approached us with this idea to bring PMHU to the Hillcrest Eighth

SPOTLIGHT ON CARING

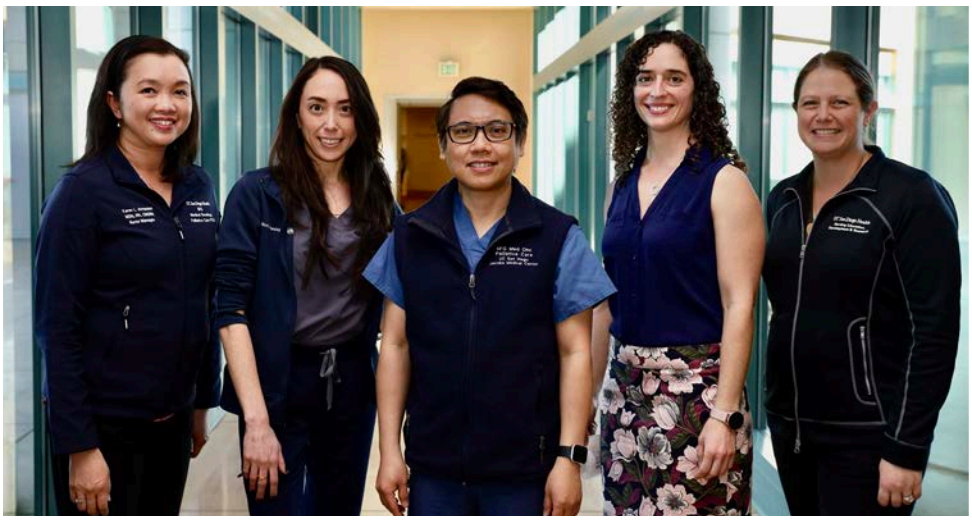
COVID Care Box from HC PreOp/PACU team

By Sandelle Ongteco RN, BSN, CCRN

During the first COVID-19 surge in San Diego County, UC San Diego Health assigned the Hillcrest CCU, 10 East, 6 East and 11 East as the designated units to take care of COVID-19 positive patients.

Sandelle Ongteco, a Hillcrest Post-Anesthesia Care Unit (PACU) nurse, and the rest of the PreOp/PACU staff wanted to do something for these units to recognize how hard staff were working and show them support. Sandelle organized the PreOp/PACU staff to fill each COVID Care Boxes with snacks for COVID staff to enjoy during their short breaks in their busy shifts.

When the PreOp/PACU team surprised the units in Hillcrest with their COVID Care Boxes, they were met with the biggest smiles and lots of gratitude.Sandelle and the rest of PreOp/PACU team have profound respect for all the staff who have given their time and effort to these patients.



L to R: Karen Armenion, Monica Neslage, Noel Viray, Layah Blacksberg, Ayelet Ruppin-Pham.

Karen Armenion, MSN, RN, CMSRN, NE-BC Karen has 16 years of nursing leadership experience and 11 years as a nurse manager at UCSDH. Karen holds a Bachelor of Science in Nursing from Cebu Normal University in the Philippines and a Master's Degree in Nursing from the University of Phoenix. One of her proudest achievements is the opening of Jacobs Medical Center 5FG (JMC 5FG), the Medical Oncology and Palliative Care Unit in 2017.

Monica Neslage, MSN, RN (she/her) is an Inpatient Nurse Manager for Hillcrest 8th Floor, a 29-bed General Medicine unit. She also oversees the Clinical Care Partner Float Pool and Tele sitting/Video Monitor Department across both Hillcrest and La Jolla sites. Monica graduated with a Bachelor of Science degree in Public Health from San Diego State University and earned her Masters of Science in Nursing from Cal State University Dominguez Hills. She was born and raised in Southern California and has lived in San Diego the past 11 years, where she started her nursing career as a New Graduate Registered Nurse at UCSDH on 10E.

Noel Viray MS, RN, GERO-BC, CHPN Noel Viray MS, RN, GERO-BC, CHPN joined UC San Diego Health in 2015 and has held the position of Asst. Nurse Manager at 5FG Medical Oncology PCU & Palliative Care Unit since it opened in November 2016. He earned his Master's degree in Healthcare Management at California State University -East Bay and was one of the recipients of the UCSDH Nurse Leader of the Year Award in 2016.

Layah Blacksberg BS, MA is the Director of Experience Operations and oversees hospital volunteers, staff chaplains, medical interpreters and the guest services team. Layah has been with UC San Diego Health for 6.5 years, originally moving to San Diego in 2015. She holds a bachelor's degree from the University of Utah and a master's degree from New York University.

Ayelet Ruppin-Pham MN, RN, PHNA-BC has worked at UC San Diego Health as the Patient Education Specialist for 12 years. Part of her job includes managing and developing the resources available to teach patients throughout the health system. She received her Bachelor's degree from UCSD in Ethnic Studies and Sociology, and a Masters in Nursing from University of Washington in 2009.

"Quaran-treats"

By Andrea Bogardus

6BMT has a big heart for their patients, team, and community. This dedication to serve others was evident and strengthened throughout the pandemic. Soon after COVID-19 became prevalent in 2020, we realized how demanding being a COVID nurse must be. 6BMT did not have COVID patients on the unit, so we decided to do something to make COVID nurses smile. In April 2020, a BMT nurse, Jennifer Lawrence, spearheaded creating snack carts for the COVID units in La Jolla. Our staff collected donations to purchase treats and Jennifer and team put together the carts for each unit caring for COVID patients. The carts were filled up a few times after delivery.

When July 2020 rolled around and COVID was still rampant, we decided it was time for another "pick-me-up" for JMC ICU. 6BMT collected donations and for this morale booster, we delivered burritos to both day and night shift. Later, as Halloween was approaching, so we wanted to find a creative way to celebrate so we sent "Quaran-treats" (quarantine treats) through the tube station to units throughout La Jolla. Small gestures go a long way to brighten up everyone's day! As COVID continued into 2021, Jennifer Lawrence's neighbor also made a donation of goodie bags for nurses in JMC ICU.

Floor, my first thought was, "How could we not!?!" Music is one of the most universal and transcendent ways to connect with others. With COVID-19 impacting every aspect of patient care and how nurses deliver that care, this was a gift that we needed most. We owe it to our patients to do everything in our power to address not only their medical issues, but find ways to connect and support them while they are admitted. Music is another creative way to do just that.

Karen Armenion (Manager, JMC 5FG, Oncology PCU): One of our nurses on JMC 5FG, Dash Dingoasen, already sings to his patients when he works. He has been named in Kudos forms several times for doing this. So, when this opportunity came to us, I naturally thought of Dash and his passion for music. He came on board immediately and led the project implementation on JMC 5FG. Dash met with Volunteer Services and Ayelet and we created our own unit process to provide this service for our oncology and palliative care patients. During the pandemic, this was a breath of fresh air for our patients who were dealing with cancer and its complications. Our staff also found the music inspirational and heartwarming.

Layah: The key to making this program work was communication and technology. We established a weekly day and time when musicians would be available to play, and volunteers were scheduled to spend two to three hours on a unit. At first, given the limitations of volunteer presence on a unit during the pandemic, staff members stepped in to help patients connect to the musicians using Zoom on the iPads already available in the patient rooms. Patients would remain off camera to protect their privacy unless they agreed to connect with the musician. Many of the patients chose to interact with the musicians, requesting songs and sharing their personal musical interests. The nursing staff would often comment that they learned something about the patient from watching these interactions.

Monica: Our goals were to improve the patient and staff experience, find new ways to connect patients and give the team another potential intervention to address patient anxiety/uneasiness while in a hospital during a pandemic.

Karen: This turned into a CNIII project for Dash. He helped create a process on the unit, provided education to the nurses, measured the patient's pain before and after music therapy. Another item that we reviewed was the average time for the patients to ask for pain medications after music therapy. The data collected will help support the continuation of this service.

Ayelet: You could see the immediate impact of the music on patients and staff. Our first day on the units, staff would gather around the nursing station just to listen for five or ten minutes. Everyone seemed just a little bit calmer afterwards. One of our first patients used his cane to conduct as the violinist played!

Monica: The following feedback from the volunteer coordinator remains one of the highlights from staff and patients with regards to this program and summarizes the positive impact we all feel because of reactions like this one:

"I had a beautiful session with Project Music Heals Us today on the 8th floor at Hillcrest. One of the patients recommended by their nurse was "not interested in television but loved to listen to music". He was played two songs before requesting Ave Maria. The patient said he was reminded of his grandmother and began to cry. He let Timothy (the musician) know "I didn't think I would ever be serenaded before I was on my death bed." He had a chuckle and thanked Timothy. Once we stepped out of the room Timothy said the interaction was very powerful. I was then approached by his nurse and she was crying and thanked

SPOTLIGHT ON CARING

Nursing Self-Care

By Aran Tavakoli, MSN, RN, AOCNS, BMTCN

One of the Holistic Nursing Committee's missions is to teach nurses to be able to care for ourselves in order to provide care to others. Aran Tavakoli, chair of the Holistic Nursing Committee, recognized the immediate need for coping tools to deal with a stressful, unknown situation that no one had ever before experienced. Throughout 2020, the Holistic Nursing Committee met an immediate need and started holding weekly self-care "Coping during COVID" sessions to support nurses through the pandemic. As healthcare providers on the frontline, we need to be able to focus, remain calm, and be present in order to continue providing excellent care for patients.

Sessions were held weekly on Zoom, with guests presenting on such topics as mindfulness, mantras, self-massage, sleeping well, integrative nutrition, movement for stress relief, and practices to help soothe frazzled nervous systems. Melissa Ford, RN led many of these sessions. Guests included a sleep physician, spiritual services, and Jim Kane, the psychology Clinical Nurse Specialist.

The response was overwhelmingly positive. Attendees learned something new, and came away from sessions feeling cared for. Attendees reported that some practices resonated deeply with them and they continued using them. Some practices were even were adopted by entire units!The Holistic Nursing Committee continues to meet monthly to explore self-care topics and welcomes everyone to join!

me for visiting her patient. The patient was so moved by the music he called his family members while he was still processing his emotions and asked the nurse what he should do. The nurse told him to "just tell [the person on the phone] you love them."

I would also like to add that the charge nurse, Radinka Yordanova, who worked with the team that day to provide this service, still states this experience is something she will always remember in her career.

Karen: The feedback that we get from patients after they hear the music makes this project worthwhile. One of the patients wrote about Dash, our project leader: ""Thank you for taking care of me so well. You made me feel so comfortable. I also felt almost as if I was at home. I also want to thank you for recommending the Zoom music. It was so nice seeing and hearing them play."

Monica: We have noticed a significant benefit to our underserved and transient patients, who are some of the biggest beneficiaries of this program. This highlights the gaps and disparities we have at just the unit level, and has allowed us to address breaking them down as a team. The 8th floor team noticed that the underserved and transient populations seemed to be the most excited and appeared to benefit emotionally/behaviorally more post-intervention than some of the other admitted patients. We realized our internal bias around which patients would appreciate classical music, which has helped us rethink and improve in our approach to caring for underserved populations (including patients with psychological/neurocognitive diagnoses) and address these gaps as a team so that we can better serve the community.

Karen: We are continuing with the program as long as the musicians can partner with us. Some physicians expressed interest in using the same process for PMHU to offer other genres of music, including classical Indian. Music therapy is an important part of our tools to provide exceptional care to our oncology and palliative patients. We want to use all available resources including music therapy to provide the best nursing care.

Ayelet: This project has exceeded all our expectations, and we are so grateful to our volunteer musicians, clinicians, as well as the partners in Volunteer Services for making this successful. Programs like this emerge from a great idea, the right team, and commitment to sustainability. I hope we get to see more innovative ideas for healing continue to be adopted for staff and patients

SPOTLIGHT ON CARING

UCSD Social Justice Forums

By Ayelet Ruppin-Pham, MN, RN and Jodi Traver, PhD, RN

Social justice, ***a future desired state and likened to equity, in that a level of fairness may exist for those within the organization.***

Beginning June 2020, two nurses saw the need for a platform for learning, self-reflection and understanding of healthcare's role in anti-racism. Jodi Traver and Ayelet Ruppin-Pham developed the UCSD Nursing Social Justice Forum, creating a virtual space. They have since held nine forums with over 400 participants from across the health system and academic campus to bring attention to inequities in healthcare and education. Topics discussed in these forums included implicit bias, the experiences of Black nurses at UCSDH, pandemic and racial disparities, and how to create a more inclusive environment.

In 2022, the forums will be supported with an innovative digital platform to support social justice research and other EDI and social justice-related change management projects, foster connection, and provide educational resources for all staff at the health system and campus. Jodi and Ayelet's work are acknowledged as a key innovation by the American Nurses Association with mention in the November 2021 issue of My American Nurse, the official ANA publication following an ANA-Healthcare information and Management Systems Society (HIMSS) pre-seed funds award to support the digital pilot.

Nurses like Jodi and Ayelet continue to innovate and curate conversations and actions around equity, diversity and inclusion through mentoring programs, policy development, participation in antiracism committees and partnering with the new Chief Administrative Officer for Health Equity, Diversity and Inclusion. If you would like to get involved, please consider registering on the EDR Nursing Calendar for the next Social Justice Forum, open to all UCSDH staff and faculty.

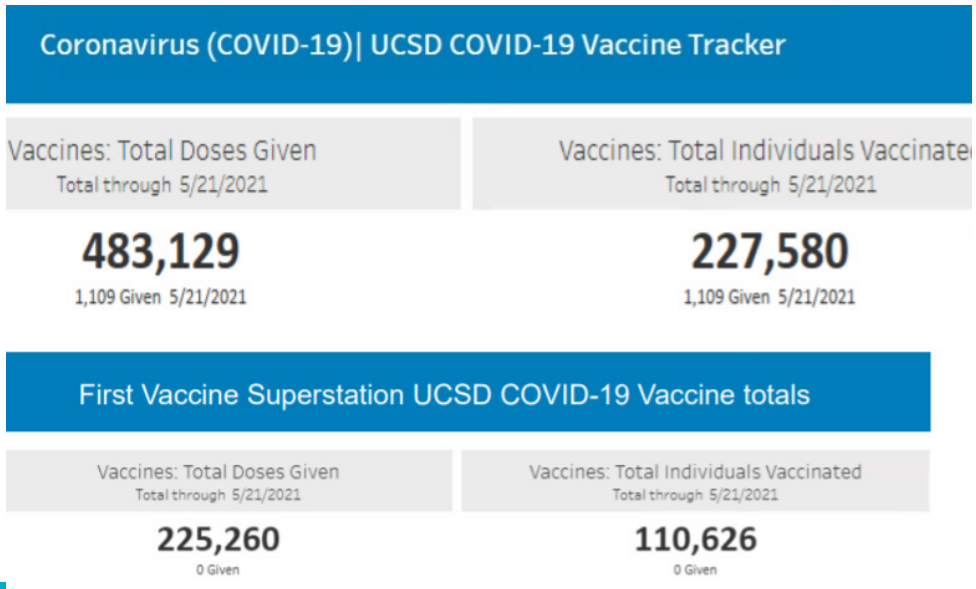
Creative Solutions to Supporting the Next Generation of Professional Nurses During a Pandemic

By: Eileen Haley, MSN, RN, CNS, CCM; Kris Henderson BSN, RN, NE-BC; Heather Warlan, PhD, RN, CPHQ

Student nurses were impacted and also an underutilized resource while working nurses faced numerous challenges during the pandemic. In San Diego, some nursing schools temporarily suspended their clinical placements, while other schools permitted them if hospitals were willing to accept students. Most hospitals were forced to close their doors to nursing students as they were faced with overwhelmed staff, logistical challenges, shortage of equipment, and restricting access to non-essential personnel. These changes within the nursing schools and hospitals were confusing, difficult to navigate, and caused a lot of uncertainty for nursing students and their futures.

In March 2020, the California Board of Registered Nurses (BRN), noting these challenges and seeing the need to support these nursing students, granted schools a temporary waiver decreasing medical-surgical direct patient care hours to 25% simulation. In September 2020, Governor Newsom signed AB 2288 allowing this adjustment to continue through the academic year and providing a decrease to 50% direct patient care hours for psychiatry, obstetrics, and pediatric clinicals.

Some schools decreased their direct care clinical hours to these temporary minimums to ensure their students graduated on time and able to enter the workforce quickly. Other schools chose to maintain their usual requirements or slightly decrease them to ensure students received the entirety of their education. Schools also had to adjust



Eileen Haley, MSN, RN, CNS, CCM is the Director of Population Health. Her team consists of nurses, social workers, providers, care navigators and health coaches. Eileen has been with UCSDH for the past 5 years, helping to build a new team to support providers and patients to deliver high quality and high value care to our patients in the communities that they live. When she is not working, she can be found enjoying time with her family and hiking or playing tennis with friends.

Heather Warlan, PhD, RN, CPHQ is currently the Assistant Director of Magnet & Nursing Quality where she oversees both of those programs as well as several others related to nursing professional development, orientation, and students. Prior to this role Heather worked in Regulatory Affairs where she supported the organization through CDPH and Joint Commission investigations and surveys. Heather's clinical background is in critical care nursing, she worked in the CCU where she also served as a code nurse and precepted new graduate nurses and students. Heather received her masters of nursing and PhD in nursing from the University of San Diego, Hahn School of Nursing and Health Science, where she is also adjunct faculty.

Kris Henderson BSN, RN, NE-BC has been at UCSDH for the past 5 years and is the Senior Director of Ambulatory Nursing Operations. COVID has brought her the opportunity to broaden nursing infrastructure in Ambulatory Care and innovate with care delivery models for COVID testing, vaccination, and patient/staff education. Providing nursing students with more opportunities to be active in community care delivery is one of the wonderful highlights of the past two years.

curriculums and develop creative and unique ways to educate their students in a non-clinical setting. Many of the schools used simulation scenarios or developed case studies to evaluate students' critical thinking and clinical decision-making ability.

UC San Diego Health (UCSDH) was one of the few hospitals to remain open to nursing students. By working with the San Diego Nursing School Consortium, we were able to accommodate as many students as possible. Judy Fernandez, Nursing School Liaison, adjusted clinical rotation schedules with the support of the labor pool, inpatient managers, clinical nurses, APRNs, and nurse educators to ensure students in their last semester were able to meet their class objectives and requirements to graduate.

To ensure nursing students graduated on time, UCSDH worked creatively with colleges to increase the number of students from one group (10 students) to allow two or three groups to share the semester. This adjustment allowed 20 to 30 additional students for each clinical rotation, per semester. Creating new opportunities for students such as placements with our Population Health team, Vaccination Stations, Simulation (at schools), were all part of the creative planning that allowed us to accommodate a greater number of students.

The other challenge was ensuring these opportunities would both support the hospital's needs during this crisis but also meet the student's learning objectives for their courses and clinical experiences. The goal was not only to ensure they graduate but also met as many of their learning objectives as possible.

6 BMT Supporting Scripps BMT during cyberattack

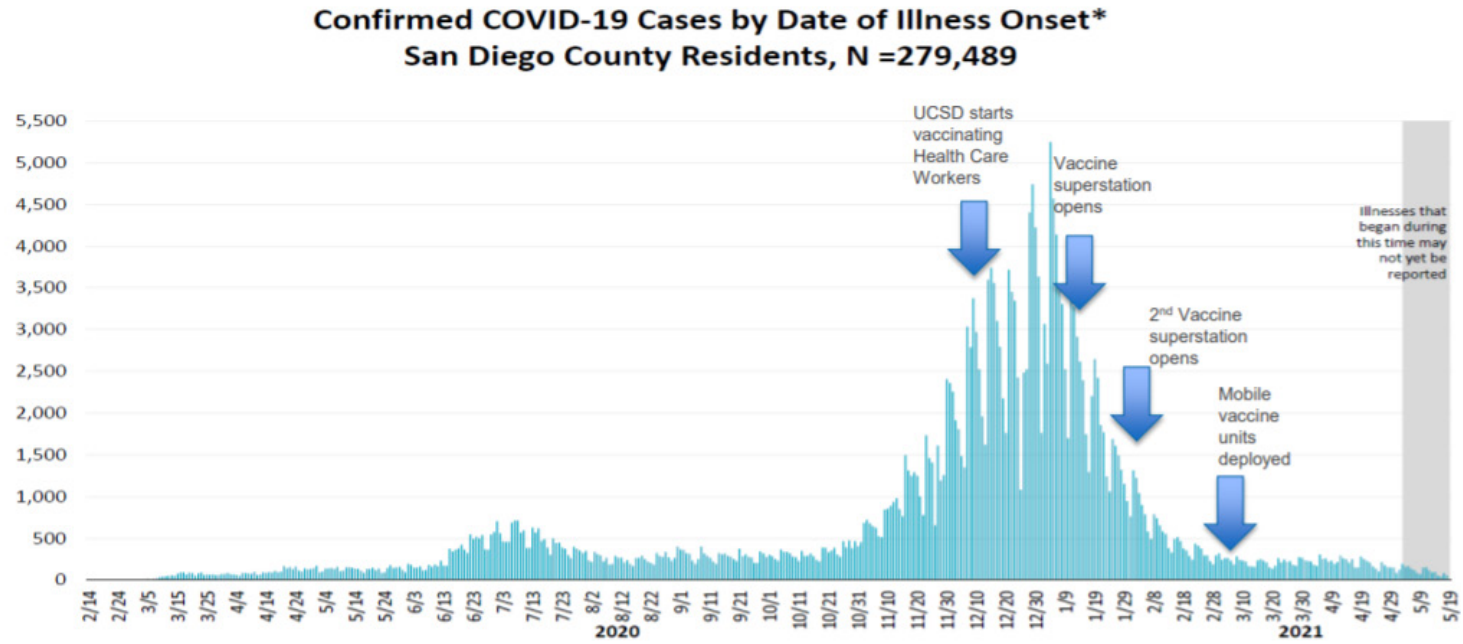
By Melissa Callahan

During Nurses' week in 2020, the dedication to creating a culture of community extended not to just our team's nurses, but those working at the Scripps BMT unit during the cyber security attack on their systems. Both Andrea and Jennifer spearheaded a unit donation fund for Scripps nurses, then purchased (a lot and a quite a variety) of burritos, packaged them with kind messages, and delivered them to the nurses working at Scripps! The messages on the burritos were: "Hey Scripps. Our thoughts are with you... Happy Nurses Week. From UCSDH 6 BMT."

It was an incredible gesture of kindness and supporting our neighbors. The Scripps nurses were shocked when they received the delivery and couldn't believe UCSDH was thinking of them. This is a true testimony to nurses' commitment to caring and thinking of others before themselves. I am proud to be on a team with nurses whose sincerity in caring for others is evident in all that they do.

COVID-19 Cases in San Diego County by Illness Onset Date

LIVE WELL SAN DIEGO



*Data are preliminary and subject to change; *if case did not have symptoms or illness onset date is unavailable, the earliest of specimen collection date, date of death, or date reported is used instead. Prepared by County of San Diego, Emergency Operation Center, 5/20/2021*

New Opportunities in Ambulatory Population Health

UCSDH has a Population Health Services team that consists of nurses, social workers and nurse practitioners, who provide team based care for our primary care and certain specialty providers. This team is an innovative model that provides both telephonic outreach and home based care to holistically support our patient's medical, social and physical needs to stay safe at home and prevent avoidable events. In April 2020, the Population Health team gained approval from the BRN to provide clinical placements to nursing students. This team developed an evidenced based wellness outreach module and utilized students to telephonically reach out to vulnerable, high-risk seniors. In this program there was a didactic portion that educated the students on population health, social determinants of health, the importance of medical management, evidence-based solutions, how to escalate concerns, and role-playing of motivational interviewing techniques. Samantha Madonis, MSN, RN, PHN and Lc Russell, MSN, RN from Population Health and a school faculty member were onsite during these rotations to provide oversight, guidance, and education. All patient encounter were documented in the medical record and approximately 15% of the telephonic outreach resulted in escalations that required interventions with follow-up to help the vulnerable seniors be safe at home during the pandemic.

Students who participated in the program reported overwhelmingly positive feedback. 93.33% indicated the rotation was applicable to their current rotation/clinical practice and 91.11% felt more comfortable and better prepared to converse with patients on a nursing level.

The Population Health team continues to utilize students to contact patients and creates further outreach programs that align with nursing school curriculum. Some additional programs in use today include engaging patients with poor diabetes and hypertension control, and enrolling them in programs to help them to better understand their condition. The team uses remote patient monitoring, community resource links to address social barriers to care and health coaching resources with a goal of improved self-care.

The future state includes adding

CONGRATULATIONS

Congratulations to all nurses who have earned their degrees during the pandemic. If you are interested in pursuing your own academic journey, please reach out to Heather Warlan and Judy Fernandez for advice and guidance on obtaining clinical placements and scholarship opportunities.

student rotations to clinics and homes. The goals are to enhance nursing student clinical knowledge and interest in seeking employment in Population Health programs as this team-based care model becomes more widespread.

COVID-19 Vaccination Super Station for San Diego County

On January 6th, 2021, the county officially tasked UC San Diego Health to start vaccinating 5,000 county residents per day within five days.

The Nursing Education Department developed orientation for staff to each site's processes, care of patients, and they evaluated competencies of community and UC San Diego Health volunteers. They increased the number of county vaccinators by doing vaccine administration training for over 200 EMTs as well as training UCSD Medical Students, Pharmacy Students, and area nursing students as vaccinators. They worked with Physician Leaders in creating standing orders for vaccinations as well as management of any side effect symptoms and arranged to have EMS on site at the superstations.

The superstations gave UCSDH another opportunity to support student nurses to meet their course learning objectives and gain hands-on experience with certain skills. Student nurses were trained to administer vaccinations as well as deliver patient education and assess for adverse reactions after the vaccination was administered.

On January 11th, 2021, the vaccination superstation opened, meeting the county's goal! A second vaccine superstation with walk-through capability was opened on the organization's university campus. This site allowed the team to vaccinate students, campus employees, and patients.

When the first superstation opened on January 11th, 2021, there were approximately 3,000 new COVID-19 cases a day in the county. Cases steadily declined while the second superstation and mobile units were deployed from January through March 2021. As of May 19, 2021, the daily case number in the county was below 50.

Food Insecurity During the Pandemic

By Laura Rossi, BA & MJ David, MSN, RN-BC, PCCN, RN
Nursing Community Involvement Committee Chair

The Transitional Telephonic Nursing Department regularly provides outreach calls for post-discharge follow-up, provide patient education and connect patients to resources to support their well-being. While checking in on patients during the spring of 2020, Telephonic Nurse Specialists began to hear troubling concerns about patients experiencing increased food insecurity resulting from the COVID-19 pandemic. According to HealthyPeople.gov, food insecurity is defined as, "The disruption of food intake or eating patterns because of lack of money and other resources." In other words, inconsistent access to sufficient, affordable, nutritious food. When food insecurity concerns are brought up, the nurses typically connect patients to their local food bank for help.

As the demand for San Diego Food Bank resources increased, MJ David, MSN, RN-BC, PCCN, RN, a Telephonic Nurse Specialist, took action. She and her team saw an opportunity to serve the San Diego community and invited their nursing colleagues to volunteer at the food bank center. As the Co-chair of the Community Involvement Committee (a subcommittee of Image of Nursing Council), MJ promoted volunteering at the San Diego Food Bank by organizing a schedule with times to sign up, providing UCSDH branded volunteer t-shirts and encouraging wearing them to work.

The response was inspiring! Nurses from units all over UCSDH volunteered their time and had a blast while doing it. Nurses organized and packaged food that was distributed to hundreds of San Diego County families negatively impacted by the pandemic. The San Diego Food Bank was grateful for the support from our nurses who served as leaders for the San Diego community.

MJ said, "Small acts can make a significant difference during the pandemic, especially when patients sometimes must make difficult choices between paying for food or their medications."We are grateful for our nurses and their continued commitment to making a difference within our community.

We Acknowledge . . .

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Publications

Nurse Presenters	Publication/Citation
Lilian Chan, Jessica Bejar and Judy Davidson	Canamo LJ, Bejar JP, Davidson JE. Converting to a Synchronous Virtual Nursing Research Conference Amidst a Pandemic: A Case Study. Creative Nursing. 2021 May 14;27(2):118-24.
Gail Reiner	Sharpe C, Reiner GE, Davis SL, Nespeca M, Gold JJ, Rasmussen M, Kuperman R, Harbert MJ, Michelson D, Joe P, Wang S. Levetiracetam versus phenobarbital for neonatal seizures: a randomized controlled trial. Pediatrics. 2020 Jun 1;145(6).
Judy Davidson	Leigh JP, Krewulak KD, Zepeda N, Farrier CE, Spence KL, Davidson JE, Stelfox HT, Fiest KM. Patients, family members and providers perceive family-administered delirium detection tools in the adult ICU as feasible and of value to patient care and family member coping: a qualitative focus group study. Canadian Journal of Anesthesia/Journal canadien d'anesthésie. 2021 Mar;68(3):358-66.
Judy Davidson	Gordon YY, Davidson JE, Kim K, Zisook S. Physician death by suicide in the United States: 2012–2016. Journal of psychiatric research. 2021 Feb 1;134:158-65.
Judy Davidson	Davidson JE, Amanda Choflet DN, Earley MM, Clark P, Sattaria Dilks DN, Linda Morrow DN, Trisha Mims MS. Nurse suicide prevention starts with crisis intervention. American Nurse.202116(2)14-18.
Judy Davidson	Bernadette Mazurek Melnyk, PhD, APRN-CNP, FAANP, FNAP, FAAN; Andreanna Pavan Hsieh, MPH; Judy Davidson, DNP RN MCCM FAAN; Holly Carpenter, BSN, RN; Amanda Choflet, DNP, RN, OCN; Janie Heath, APRN-BC, FAAN, FNAP, FAANP; Marianne E. Hess, MSN, RN, CCRN-K; Peggy Lee, BSN, RN; Terri Link, MPH, BSN, CNOR, CIC, CAIP, FAPIC; Jalma Marcus, RN, BS, MS, HNB-BC, CLSE, CBP, AT; Christine Pabico PhD, RN, NE-BC; Kathleen Poindexter, PhD, RN, CNE, ANEF; and Lisa Stand, JD. Promoting Nurse Mental Health. American Nurse
Julie DeVaney	https://www.myamericannurse.com/8-lessons-learned-from-the-covid-19-pandemic/
Judy Davidson	https://www.aacn.org/blog/you-matter

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EBPI Fellows

Fellow	Topic
Danilo Sobejana	Implementation of Agitated Behavioral Scale for patients with TBI.
Shauna Rosengren	Implementation of a behavioral modification and rewards program for aggressiveviolent or difficult clients in the inpatient setting.
Danielle Grist	Decreasing ICU readmission
Jennifer Hirschler	Improving inpatient quality of sleep
Makenzie Stade	Supervised exercise therapy (SET)for patients with peripheral arterial disease (PAD)
Kimberly Huynh	Create a multidisciplinary outpatient education program to support patients diagnosed with diabetes type 1 or 2.
Clarissa Domingo	Implementation of a Simulation-Based workplace violence training course for new nurses in UCSD's Nurse Residency Program.
Amy Victor	Implementing a recreational therapy program for long term traumatic brain injury patients.
Elizabeth Milan	Fall reduction
Marissa Lewis	Process improvement in care coordination communication with insurance payors
Sophie Ou	Implement a standardized nursing practice for monitoring patient safety in outpatient infusion center
Magda Angel	Improve immunization compliance rates by implementing standing order protocols for adult vaccine administration during nurse clinic visits performed by RN or LVN.
Cynta Lytle	Implement iPASS, a structured electronic handoff tool to improve nursing outcomes
Amy De Leon	Care of victims of strangulation at HC ED
Ryan Steinbrecher	Development of a handoff tool for COAs
Rahel Demessie	Constipation prevention for Orthopedic and surgical spine patients.
Rebekah Lauritzen	Improving patient outcomes through written materials in Spanish
Preston Wood	Eliminating log rolling as a standard practice in the ED to reduce spinal injuries in trauma patients

We proudly recognize...

CN III Promotions

Nurse	Unit	Project
Scott Sniffin RN, BSN, CEN, MICN, PHN	Hillcrest ED	The Modified Valsalva Maneuver (REVERT): Treating Patients Presenting to the ED with Stable Ventricular Tachycardia
Jillian Sherman MSN, RNC	JMC NICU	Utilizing Bedside Tablets to Improve Parent Education, Confidence, Satisfaction
Kelly Wagner RN, BSN	Cardiology	Kansas City Cardiomyopathy Questionnaire (KCCQ) and 5 Meter Walk (5MW) Performance Improvement
Elise Groves RN, BSN, CCRN	CVC ICU	The Ventilation Liberation Protocol
Zohra Cincotta RN, ALS	JMC NICU	Improving the Lives of Babies by Empowering Nurses to Initiate and Provide Efficient Neonatal Resuscitation
Michaela Rojas RN, BSN, MBA	JMC Kidney Transplant	Implementation of a new Kidney Transplant waitlist protocol, thereby increasing the number of transplants and decreasing 801 and 812 codes for donor offers in UNET
Marcon Nicdao BSN, RN, PCCN	5 West Trauma PCU	Kee “PIN” it Clean: An Evidence-Based Practice on Pin Site Care
Grace Nasi BSN, RN, PCCN	5 West Trauma PCU	National Early Warning Score 2 (NEWS2) Bundle: Enhancing the Identification of Patient Decline in Trauma PCU
Desirea Ahern Young (Cabrera) BSN, RN	NICU	Supply Reorganization in the Neonatal Intensive Care Unit
Hannah Turner RN, BSN	Lifesharing	Maximizing Lung Donation by Performing a Bronchial Alveolar Lavage to Obtain a Sputum Sample for COVID 19 Testing
Beverly Nuanes (Bucsit) RN-BC, PCCN	JMC 4FGH	Post-Op Robotic Prostatectomy Conditional Discharge
Jeffrey Rocodo RN, BSN	PACU	Enhancing Perioperative Communication to Improve Patient Satisfaction
Jansen Pagal BSN, RN, CCRN	JMC 3F	A Healing Place for the Healers: Meditation Room for the Neuro ICU Healthcare Heroes
Jennifer Greenwald BSN, RN, PCCN	CVC 4AB	A Unified Approach to Individualizing Fall Prevention Education for Patients
Ali Ahmadzi RN, BSN, DNP, FNP	JMC 3F	Evaluating the State Anxiety Level of Patients‘ Families Pre and Post Inclusion on Rounds
Maria Arlene Jugo-Naeyaert RN, MSN	Cardiology Clinic	Reduction in Electrophysiology (EP) Department procedure cancellations through creation and implementation of standard instruction for EP procedure

Nurse	Unit	Project
Nicole Guerra MSN, RN, CCRN	JMC 3F	You Lose When You Don't Snooze
Nicole Champagne RN, BSN	Center of Transplantation	Immunizing Prior to Transplantation
Shanda Garcia RN, BSN, CPAN	JMC PTU	Improving Pre-Operative Nursing Workflow through Organized Admission Process
Kathleen Alberto BSN, RN-BC	6 East	Mentorship Program for Clinical Nurses on a Medical-Surgical Unit
Andrea Heyse BSN, RN	8 East/West	Improving Staff Communication through Patient Mobility Signs
Rachelle Gonzales BSN, RN, CMSRN	6 West	Increasing Staff Support for Victims of Workplace Violence
Elizabeth Hughes RNC-OB, BSN, NRP	L&D	Sepsis- Management in the Obstetric Unit
Cassandra Oliver RN, BSN	JMC 4PCU	Making Micro Moves: Improving Microsurgery Outcomes and Perceived StaffKnowledge with Implementation of a Post-Operative Standardized Nursing Process
Meghan Sullivan RN, BSN, OCN	Encinitas Cancer Center	Oncology Patient Education
Cynthia Rodriguez RN, BSN	Pulmonary Vascular Medicine	Standardized Invasive Cardiopulmonary Exercise Testing (iCPET) procedures in the Cath Lab
Tina Gray BSN, RN, CDCES	MFC&G	SMART Goals Implementation in the Diabetes and Pregnancy Program
Patience Agoh MSN, RN	11 East/West	Reducing Patients Fall Using the BMAT Tool in 11th Floor Neuro/Surgical PCU
Mary Ekno BSN, RNC-NIC	NICU	Use of mobile technology to improve breastfeeding rates among preterm infants: A non-randomized interventional pilot study

The PDC remains committed to supporting nurses with professional advancement by evaluating the CNIII Clinical ladder reclassification standards and developing tools and resource materials for aspiring CNIII candidates. In the last year, PDC reviewed 28 portfolios to ensure they met reclassification standards. To improve the efficiency and experience of submitting a completed portfolio, the council implemented an electronic submission and review process. This change facilitates providing feedback to the candidate prior to their presentation to the PDC. Additionally, the CNIII & CNIV maintenance criteria were expanded to support unique roles in the various work environments throughout UCSD Health. An electronic tracking tool was created to auto-calculate maintenance points, making it easy to record activities. Classes were provided for both managers and nurses on how to use the tracker and clarified questions regarding the maintenance criteria. Lastly, a step-by-step video was created to walk nurses through the process of documenting their activities in My Performance.

Interested in getting your CNIII? Learn more by checking out the PDC page on the Nursing Resource Hub: Professional Development Council (ucsd.edu) and contact the PDC Chair or Co-chair with any questions.

Patient Recognition

NICU

The nurses in NICU provided me and my family with empathetic, sympathetic and supportive care while we coped with the biggest change to our life that was not exactly as expected. I can forever grateful to the care team that made us all comfortable and safe.

VLJ Womens Health

The entire staff was incredible. I had to get a very sensitive procedure and I was emotional and scared but the nurses and doctors were gentle, kind, knowledgeable and caring. These type of practitioners make a world of difference

Inpatient

I gained a tremendous amount of respect for the nurses who work so hard every shift.They were fantastic!!Hats off to the nurses on floor 4H, G, & F.

I truly can't say enough good things about your hospital & its staff.A nurse at the Apollo Circle Covid Test Center actually interrupted her lunch hour to test us early when we walked over from La Jolla Family House on Sunday at noon to find our way!And another went out of her way to show us where to go & how to get there!I felt totally surrounded by angels.

LJ 2 – Preop (Ambulatory Surgery)

I had a wonderful care team, everyone was kind, thoughtful and compassionate. In fact, people went out of their way to be helpful and supportive. I'd like to also give a special nod to my pre-op nurse, who was absolutely wonderful. I couldn't have asked for a better nurse, amazing in every respect. I really appreciate all the care I got from each team, i.e., pre-op, surgery, PACU, who were friendly, knowledgeable, skilled and compassionate. Thank you so much for making an anxiety-provoking experience easier!

COVID-19 RELATED

Got in the same day to determine if I had a sinus infection or Covid. Nurse and staff were very friendly and professional. Thanks to all of you - you are all working so hard during these stressful times, but helping so many individuals and families

VLJ Urgent Care

The nurses and doctor we had were some of the best we've ever had. I am so impressed. Thank you for making my little girl feel better.

UPC Dermatology

Me atendieron muy educadamente muy profesionalmente y todo en mi idioma en español, la verdad es que todo todo el personal médico tanto como las enfermeras en especial todo el mundo me atendió muy bien muy profesional y los podemos ir a gusto, les doy. Gracias por todo realmente de antemano. Es que a todo el que pueda lo voy ya a recomendar porque son muy muy muy profesionales muy buenos muy buenos médicos y muy buenas personas que en lo particular a viejitos, como yo es lo que nos muy buenas personas y muy atentamente educados y muy profesionales, muchas gracias.

Article continued from page 35

Nursing Sensitive Indicators during COVID-19

analyzed based on new guidelines from the National Pressure Injury Advisory Panel (NPIAP), allowing the Wound, Ostomy, and Continence (WOC) nurses to differentiate hospital acquired pressure injuries on normal skin from those related to COVID-19 physiologic changes and not caused by pressure. UCSDH nurses remain dedicated to early identification of wounds and aggressive prevention measures, which are both necessary to decrease our HAPI rate and keep our patients safe.

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