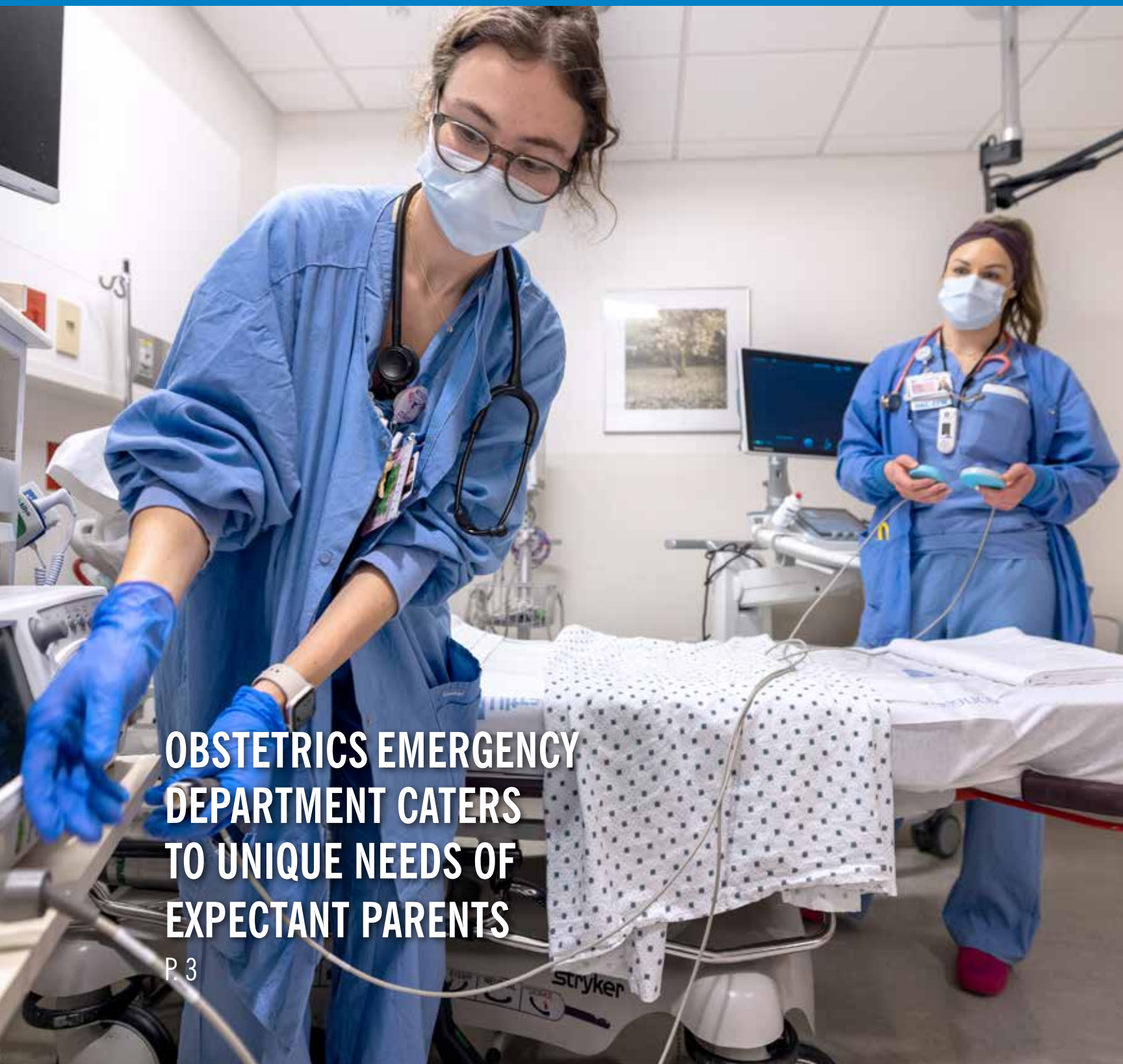


Notable
NURSING

The Stanley Shalom Zielony Institute for Nursing Excellence
SPRING 2023



**OBSTETRICS EMERGENCY
DEPARTMENT CATERS
TO UNIQUE NEEDS OF
EXPECTANT PARENTS**

P 3



Dear Colleagues,

Through articles that showcase the wonderful diversity of the nursing profession, this issue of *Notable Nursing* presents a fresh look at the varied opportunities our profession offers. From the speed at which patient care is progressing to the ever-growing number of specialized paths available to contemporary nurses, professional caregiving has entered a new and exciting age.

On page 5, we share how virtual reality is enhancing interprofessional training and education. Nurses are practicing in state-of-the-art facilities like Cleveland Clinic Cancer Center, Abu Dhabi, where patients have access to the best and most comprehensive oncology care in the United Arab Emirates. As shown on pages 10-11, the facility meets the highest standards in specialized oncological screening, diagnostic testing and treatments.

Advancing care for specific patient populations is fueling nursing innovation and creativity. The development of an early warning system for pediatric patients (page 14) is an exciting example, as is Hillcrest Hospital's dedicated obstetrics emergency department (page 3), where specially trained nurses provide around-the-clock care to some of our most vulnerable patients: pregnant women and their babies.

Nurses everywhere are learning to leverage the increasing number of professional avenues. These opportunities may be in the form of clinical research, including the inpatient study featured on page 15, or through programs like Cleveland Clinic's Professional Development Pathways Program for APRNs (pages 12-14).

And now, more than ever, healthcare organizations recognize that for nurses to excel, they also need physical, mental and emotional support. Programs like *Emerge Stronger* (page 8) are helping nurses be the best versions of themselves so they can, in turn, provide the best care for their patients.

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Executive Chief Nursing Officer, Cleveland Clinic

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On the cover: Kathryn Pond, BSN, RN, and Abigail Grewal, BSN, RN, prepare the fetal monitors for an incoming patient.

These priorities help keep our focus on treating our patients and fellow caregivers as



if they are family, maintaining our commitment to the communities we serve, and respecting the organization as we do our own homes.

Obstetrics Emergency Department Caters to Unique Needs of Expectant Parents

SPECIALIZED UNIT PROVIDES PREGNANT PATIENTS WITH FASTER, MORE TARGETED CARE

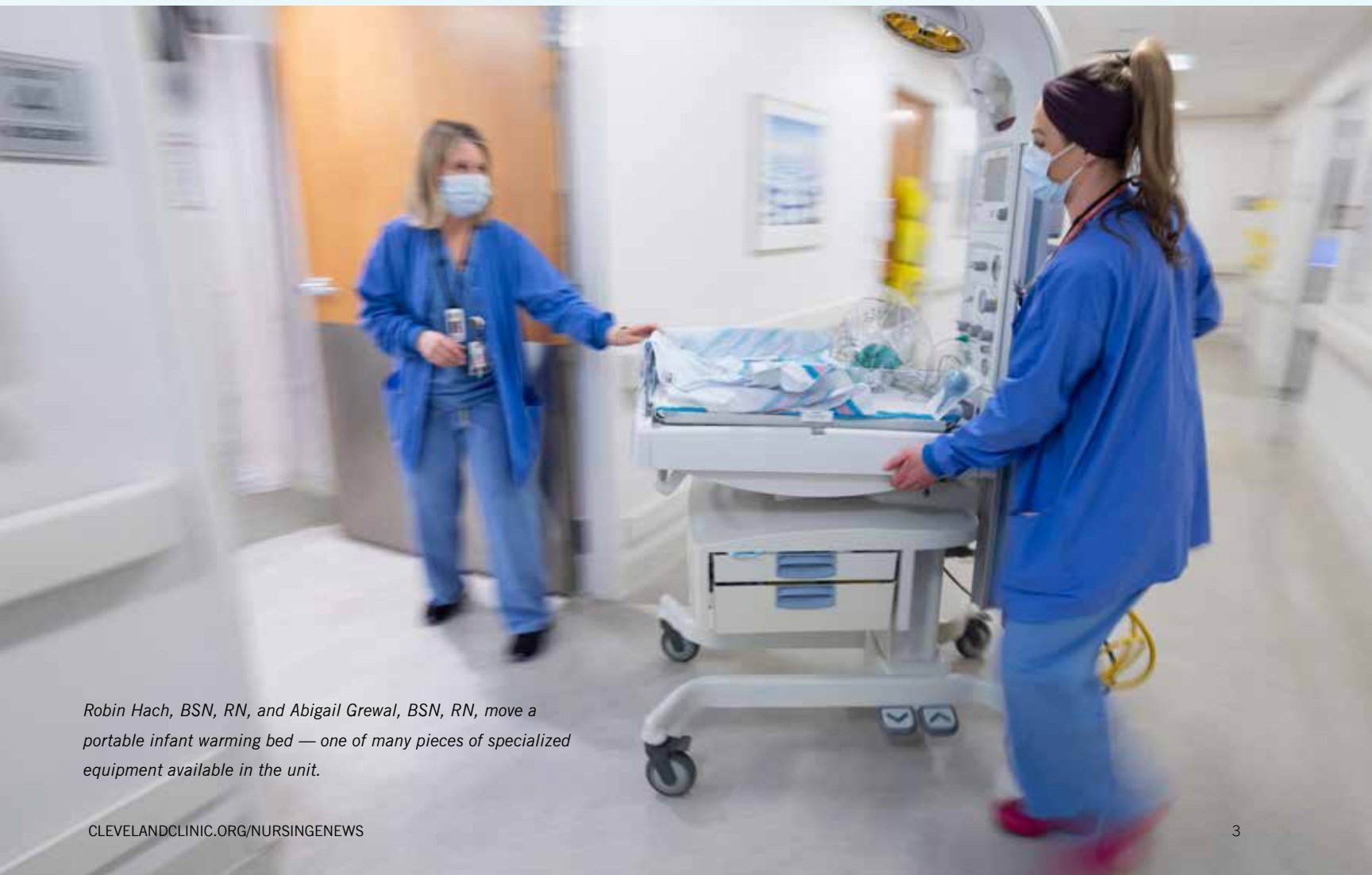


Diane Cleary

Pregnant women faced with unexpected medical emergencies can now turn to a specialized emergency department (ED) for care. Cleveland Clinic Hillcrest Hospital has engineered a leading-edge obstetrics (OB) ED specially equipped to assess and treat the unique complications that can arise during pregnancy.

Since opening in 2021, the seven-bed unit has served the needs of more than 5,600 women with conditions ranging from fetal-movement problems to hyperemesis, hypertension, preterm labor and bleeding. The goal, explains Nursing Director Diane Cleary, MSN, CMSRN, NE-BC, is to provide rapid, appropriate treatment that is focused on the well-being of both mother and fetus.

“Before we had this facility, our clinicians frequently had to leave the floor to care for obstetric patients in the regular ED, where the wait times could be unpredictable,” Cleary says. “It became clear that we needed a specialized unit — a facility designed to meet the complex needs of pregnant women with an emergency.”



Robin Hach, BSN, RN, and Abigail Grewal, BSN, RN, move a portable infant warming bed — one of many pieces of specialized equipment available in the unit.



Kathryn Pond, BSN, RN, and Abigail Grewal, BSN, RN, demonstrate the fully functional birthing beds that are available in all rooms on the unit.

PRIORITY CARE

Located within Hillcrest Hospital's labor and delivery unit and one floor above the ED, the OB ED represents a new model of care, says Cleary. When pregnant women arrive in the primary ED, they are evaluated. Depending on their presentation, many will be taken directly to a dedicated OB triage area, where wait times are shorter, the staff is trained in obstetrics and women can be seen by their regular obstetric practitioner.

Emergent conditions like trauma, chest pain, shortness of breath and known ectopic pregnancies are typically managed in the regular ED, and less-emergent issues, including hypertension and bleeding, are assessed and treated in the OB emergency unit.



Julianne Fruscella

"Our staff is unusual in that it includes OB RNs, a clinical technician and a full complement of OB residents," explains Julianne Fruscella, RN, a labor and delivery nurse. "We're all here because we love what we do. I think our patients recognize that we've created a safe environment specifically for them — a place that is uniquely prepared to address complications that can arise during pregnancy."

Importantly, the OB ED also provides priority processing of medical tests performed outside the unit. "In the ED, patients must often wait 'in line' to undergo diagnostic imaging and receive their laboratory results," she says. "That's not the case in our unit. Our goal is to

remove as many barriers as possible between our patients and the care they require."

The unit's equipment is also specialized. The beds, for example, are already outfitted with stirrups required for a pelvic exam. This is in contrast to the general ED, where stirrups must be added to traditional hospital beds on an as-needed basis. Rooms in the OB ED are stocked with electronic fetal monitors, which are not standard equipment in the regular ED.

The result of this extensive preplanning is more-personalized care that is attuned to the needs of pregnant women, explains Fruscella. "Our training ensures that we keep patients' pregnancies top of mind when prescribing medications or performing interventions," she says. "We strive to balance primary care and obstetric concerns to ensure the best outcomes for the mothers and babies we serve."

BRIGHT FUTURE

If patient surveys are any indication, the OB ED is succeeding in its mission. "We've received so much gratitude from our patients," says Cleary. "Pregnancy-related emergencies can be incredibly stressful for families, and our caregivers recognize the importance of approaching each case with empathy. I think our patients can feel that compassion, and they're thankful.

"Word about the unit has spread, so we've had women come to us from almost every ZIP code in Northeast Ohio and beyond. Our reach just continues to expand."

In light of their success, the staff foresees a need for further growth — in both the unit's physical facilities and its approach to acute obstetric care. Cleary says the team eventually hopes to incorporate a dedicated observation area in the primary ED for pregnancy concerns and complications.

"Our physicians, nurses and leaders work very well together and share a commitment to continuous improvement," she adds. "We never stop thinking about how we can make emergency care better, safer and less stressful for our future mothers and their babies."

Pilot Project Reveals Opportunities and Challenges of Virtual Reality

CLINICIANS EMBRACE IMMERSIVE TECHNOLOGY TO LEARN REAL-WORLD SKILLS

Faced with a growing need to provide clinical learning experiences, healthcare leaders are increasingly looking to simulation as a practical, hands-on solution. In particular, virtual reality (VR) is rapidly gaining momentum as a novel teaching tool, thanks to its ability to engage trainees in high-tech, experiential scenarios.

But how well does VR live up to the hype? A new pilot project at Cleveland Clinic sheds light on the opportunities and challenges that accompany this cutting-edge technology and its growing importance in medical education.



Nichole Brown

Although it can be a powerful and engaging training tool, experts say that VR may be most useful in specific, specialized scenarios. “Virtual reality offers clear advantages for training, especially in large, multisite hospital systems like Cleveland Clinic,” explains Nichole Brown, MSN, PhD, RN,

CHSE-A, Simulation Education Specialist. “We strive to standardize care across all our facilities, and VR is a particularly promising solution that allows learners to take part in the same exercises, regardless of their location. Despite our optimism, however, there is still much to learn about how the technology can be used most effectively to train clinicians.”



Simulation Education Specialist Nichole Brown shows new students how to use the VR equipment before they become immersed in the training.



Simulation Operations Specialist Jessica Rinard helps fit her colleague Maureen Washock with VR goggles.



Simulation Education Specialist Nichole Brown prepares an inpatient scenario for her VR students.

LEARNING CURVE



Jessica Rinard

Cleveland Clinic's Simulation and Advanced Skills Center was tasked with developing a VR training program in 2021. After selecting a platform and integrating it into hospital systems, the team executed its first VR training session in May 2022, during which learners at three different sites participated in a mock code simulation. The event was a success, says Jessica Rinard, AAS, COTA,

Simulation Operations Specialist, but the team found the first session to be especially time and labor intensive.

“Most of our learners had never used VR before, so we had to start with the basics — like how to use a headset,” she says. “We also had to train participants to navigate the software: How does the virtual environment work? How do you pick up medical equipment? How do you pass an item off to another team member? All these questions had to be addressed.”

The session also required the presence of two simulation specialists at each site, along with a central moderator and facilitator to manage the mock scenario. “When people think of VR, they often assume it’s



Michelle Feliciano

a quick, simple and less resource-intensive training approach; however, our pilot showed that this may not always be the case,” says Michelle Feliciano, MEd, CHSE-A, Simulation Education Specialist. “Despite the learning curve that accompanies VR, our program highlights the advantages that the technology brings to the healthcare space.”

3D PRACTICE



Maureen Washock

Learners reported that the immersive platform made the clinical scenarios feel more realistic than traditional simulations. Even when the graphics aren’t convincing — such as when blood is represented on screen by a red blob — the scenario feels “real” because

VR allows participants to interact with the whole environment, says Maureen Washock, BSN, RN, CPN, CHSE, Simulation Education

Specialist. For example, VR can depict a 360-degree view of an operating room, while a manikin simulation might be performed in a conference room or multipurpose area.



Maureen Washock and Ashley Kildow, RRT, take part in a VR scenario depicting a mock patient who has fallen in a rural area. During this activity, students have access to virtual medical equipment and medicine stored in the red backpack and blue containers seen on the screen. Using the handheld controllers, they are able to select what they need from the available materials at the scene, all while interacting with the virtual patient in real time.

“To get the most out of a traditional simulation exercise, participants have to use their imaginations to really buy into the scenario, but with VR, learners are fully engaged from the beginning,” says Washock. “The technology pulls you in right away.”

Learners also feel more anonymous and less self-conscious about being observed when using VR, Brown notes. “When you’re in a live scenario, you’re very aware that you’re being watched. In some cases, you may even be working in front of a two-way mirror,” she says. “No one wants to look silly, of course, so this dynamic can cause learners to hesitate.”

Standardization is another advantage of VR, adds Washock, because each scenario can be run repeatedly without variation. “The technology can provide the same experience, regardless of the learner’s location,” she says. “Whether you’re at a low-resource facility where we’ve shipped a headset or you’re on main campus and equipped with all the bells and whistles, the simulated scenario is exactly the same.”

Despite its many advantages, Brown cautions that VR isn’t right for every situation. In particular, the equipment can be cumbersome when training large groups and is of little value for teaching

psychomotor skills, she says. “It’s difficult to simulate an intubation, for example, because VR doesn’t have the capacity to provide haptic feedback,” she explains.

Instead, VR simulation may be better suited to team training, decision-making scenarios and communication exercises, says Rinard. In addition, facilitators should be aware that some people are simply unable to tolerate VR, she says. “It’s important to keep an eye out for cyber sickness, which can make participants feel dizzy, nauseated and even disoriented in their environment,” she says.

BRIGHT FUTURE

In the coming months, the team plans to create custom training scenarios that are standardized to Cleveland Clinic practices. They’re also looking for opportunities to evaluate and study VR training outcomes.

“Virtual reality is an exciting trend in healthcare, but it’s still quite new,” says Brown. “There is currently little evidence to support best practices, but I think this is where our work can make a difference. By continuing to evaluate the platform, not only do we aim to inform our own health system about the most productive ways to use VR, but we also hope to educate the larger simulation community.”

Emerge Stronger: Program Helps Nurses Heal, Navigate Loss

PEERS PROVIDE CONFIDENTIAL SUPPORT AFTER DISTRESSING CLINICAL EVENTS

The top priority for any nurse is the health and well-being of their patients, yet the unpredictable nature of illness and recovery can trigger feelings of guilt, fear, anxiety and grief in even the most experienced caregivers. Adverse clinical events, including the sudden death of a patient, can have serious emotional consequences for nurses charged with their care.



Dianna Copley

“Nurses bear witness to tragedy every day. They develop relationships with our patients and advocate tirelessly on their behalf, but things don’t always go as planned,” says Dianna Copley, DNP, APRN-CNS, ACCNS-AG, CCRN, Clinical Nurse Specialist at Cleveland Clinic. “It can affect nurses deeply when someone they’ve cared for dies or experiences unexpected complications.”

According to a 2020 survey, 75% of Cleveland Clinic caregivers reported experiencing an adverse event at work. Interestingly, more

than 80% shared that the type of help they most desired in the wake of a distressing event was support from a respected peer.

CREATING AN AVENUE FOR HEALING

“The feedback we received from our caregivers revealed an opportunity to make Cleveland Clinic a more compassionate organization,” explains Copley. “By connecting our nurses with peers who understand the unique stresses of practicing in healthcare, we can provide the kind of support and encouragement they find most meaningful.”

In 2020, Cleveland Clinic convened an interdisciplinary team to develop a program designed to help caregivers manage their own grief

Craig Tobias, MBA, MSN, RN, a member of the program’s original interdisciplinary team, helps connect fellow nurses with peer supporters.

and stress surrounding adverse patient encounters. The result was Emerge Stronger, a novel initiative that provides confidential, one-on-one peer support for any caregiver affected by an adverse clinical event.



Jaclyn Ivy

Since the program was launched, nearly 230 caregivers in a variety of Cleveland Clinic roles have been trained as peer supporters. Among them is Jaclyn Ivy, BSN, RN, CAPA, a perianesthesia nurse at Cleveland Clinic Strongsville Family Health and Surgery Center, who says the program can help participants confront uncomfortable emotions surrounding an adverse event.

“As a peer supporter, I encourage my colleagues to discuss and embrace their emotions,” she explains. “It takes an enormous amount of strength to provide compassionate care, so it can be counterintuitive for nurses to let down their guard and just feel. My role is to listen, guide and help them understand that the intense feelings they’re experiencing are normal.”

BUILDING A NETWORK OF PEER-TO-PEER SUPPORT



Collins Uzuegbu

After an adverse event, nurses often suffer in silence — and suffer alone. In patient safety literature, this emotional turmoil is called “second-victim phenomenon,” first characterized by researchers in 2000. Collins Uzuegbu, MS, APRN-CNS, BC, ACHPN, a Clinical Nurse Specialist at Cleveland Clinic Fairview Hospital, explains that Emerge Stronger aims to alleviate the isolation nursing caregivers may feel.

“I think what sets this program apart is that it promotes healing through peer-to-peer connections,” Uzuegbu says. “It’s powerful to have your experience validated by a fellow nurse — someone who genuinely understands what you’re going through. Ultimately, our caregivers want to feel better so they can return to the work they do best. Emerge Stronger makes that possible.”

Following a distressing event, caregivers can request help through the program’s website or email. A program manager then matches

that individual with a trained peer supporter, who connects with the caregiver either virtually or in person. Participants can also recommend resources for more intensive support from counseling or spiritual care professionals.

Copley says the program has been incredibly meaningful, especially for nurses.

“Nurses are deeply affected by the heartbreak that can accompany clinical work, so they’re grateful for an outlet that allows them to share their grief with a peer who truly understands,” she says. “The humanity they show their patients and each other is profound, and nowhere is this more apparent than in the conversations they have with their Emerge Stronger allies.”



Nurse Manager Vincent Thompson, MSN, RN, finds an understanding peer on the other end of the line.

Nurses at Forefront of New Abu Dhabi Cancer Center

STATE-OF-THE-ART FACILITY EXPANDS GLOBAL CARE, PROFESSIONAL OPPORTUNITIES

After nearly a decade of intensive planning and preparation, an ultra-modern cancer center recently opened its doors at Cleveland Clinic Abu Dhabi, where it will help eliminate the need for patients to travel abroad for lifesaving treatment. Not only will the new facility provide much-needed care to cancer patients in the Middle East, but it will also help recruit and train a specialized team of oncology nurses in the United Arab Emirates (UAE).

Modeled after Cleveland Clinic Taussig Cancer Center, home to one of the leading oncology programs in the United States, the new Fatima bint Mubarak Center is expected to provide unprecedented opportunities for UAE patients and clinicians alike. To meet the region's growing demand for sophisticated cancer care, the center has assembled an expert team of more than 60 nurses who are uniquely prepared to manage even the most critical and complex clinical challenges.



Zeina Kassem

"We've created the most healing environment possible, always with patients in mind. Moreover, the ambitious project has provided a unique opportunity for our nurses, who actively participated in building design, equipment selection and workflow creation," explains Zeina Kassem, DNP, RN, Director of the center's oncology and transplant programs. "For the first time, the people of Abu Dhabi now have access

to sophisticated cancer screening and diagnostic testing, advanced radiation treatments, and precision cellular therapies — all in one location and provided by a world-class multidisciplinary team."

NEW POSSIBILITIES FOR PATIENTS AND CAREGIVERS

The seven-story, 205,000-square-foot facility features 32 examination rooms for multidisciplinary cancer consultations and 24 private infusion rooms for administering medications intravenously. Located around the exterior of the building, the center's chemotherapy infusion suites provide natural light and views of the region's surrounding islands. In addition, the building includes two procedure rooms and an area devoted exclusively to women's oncology services.

Beyond clinical services, the facility will house critical support services intended to reduce the psychological stress that can accompany cancer

treatment. In addition to providing a healing, comforting environment that includes several gardens as well as dedicated areas for meditation and prayer, the center has developed a special mentoring program designed to provide patients with confidential, one-on-one advice and support from a trained volunteer and cancer survivor.

The Abu Dhabi center also offers a Comprehensive Lifestyle Medicine Program — the first in the region to support cancer patients with the expertise of a lifestyle medicine doctor, physiotherapist, psychologist and dietitian.

"What we're doing here is completely novel, and none of it would be possible without the determination and leadership of nurses," says Kassem. "Cancer programming is a relatively new concept in the UAE — a dynamic that puts our caregivers at the forefront of something truly special. It gives me goose bumps to think about the exciting new doors our center is opening, not only for patients but also for our phenomenal team of nurses."

Importantly, the need to provide this high-level care has created a multitude of professional opportunities for nurses with a passion for oncology, notes Kassem. "Our nurses have the chance to practice in a variety of inpatient and ambulatory care settings and subspecialties from infusion therapy to radiation oncology to bone marrow transplant. We also encourage our caregivers to pursue opportunities in nursing leadership, patient education, case management and many other areas," she says.

KEEPING PACE WITH PROGRESS

To meet the region's growing demand for high-caliber cancer services, hospital leaders created a new nursing position focused on standardizing care across all oncology service lines. These oncology nursing coordinators work closely within a disease group to guide



The newly opened Fatima bint Mubarak Center includes 24 private chemotherapy infusion suites featuring natural light and views of the region's surrounding islands.

patients through the duration of their cancer journey. Nowhere else in the UAE do nurses have the “privilege of connecting with cancer patients at the beginning of their journey — when their anxiety is at its peak – and supporting them from the moment they call to schedule an appointment to when treatment ends,” says Kassem.

“Our nursing coordinators are there through every step of care, from performing assessments and administering therapies to educating patients and their families,” she explains. “And just as our patients emerge on the other side of their journey, so do our nurses — having been exposed to countless learning experiences along the way.”

After nearly a year of intensive preparation and training, oncologists at the Fatima bint Mubarak Center recently performed the UAE’s first bone marrow transplant (BMT). In anticipation of the procedure, the center recruited several nurses with prior BMT experience and identified a small internal group of nurses who had the desire to learn more about the procedure. Kassem says that educating UAE clinicians on new treatment protocols and clinical developments — a process she calls “upscaling” — encourages professional growth and satisfaction.

Stephen Grobmyer, MD, chair of the oncology center at Cleveland Clinic Abu Dhabi, explains that the center is especially committed to increasing access to clinical trials, developing novel therapies, and focusing on untapped areas of research such as understanding the causes of and managing the side effects of cancer treatments as well as preventing and treating young-onset cancers. Precision oncology, which enables clinicians to provide specific care based on a particular patient’s genetic makeup, and chimeric antigen receptor T-cell therapy are other areas of projected growth.

“By virtue of their deep connection to patients, nurses are critical drivers of change and innovation in healthcare,” says Dr. Grobmyer. “Just as we aim to provide our patients with choices, we also encourage our nurses to explore the many avenues available to cancer caregivers.”

Kassem adds, “Our patients are enormously grateful to have a world-class oncology center so close to home — and our nurses are equally thankful to play such a meaningful role in their care. I’m incredibly proud to be a part of such a beautiful place, where we work together as a team of teams to provide the most advanced and compassionate care possible.”



Nurse leader Pamela Combs (pictured above) and her team created the formal mentorship program to help advanced practice nurses expand their professional opportunities.

At left, participant Shaneeka Rice describes her project to colleague Kyle Shannon, CNP, APRN, FNP-C, one of the program's founding members.

Development Program Provides New Pathways for APRNs

NURSES EXPAND THEIR CAREERS BY HONING LEADERSHIP AND RESEARCH SKILLS



As an Advanced Practice Registered Nurse (APRN) at Cleveland Clinic, Shaneeka Rice, MSN, CNP, takes great pride in her clinical work, but she says she has always had her eye on a loftier goal. “I’ve known from the beginning that leadership would be a part of my career,” she explains. “It’s one of the reasons I chose to work at an academic medical center — the opportunity to learn, grow and really explore the boundaries of the nursing profession.”

Shaneeka Rice

Rice is not alone. Despite the ubiquitous tales of caregiver burnout, a recent learning needs survey conducted by Cleveland Clinic’s APRN Council revealed that nurses are still eager to assume additional adjunct roles that extend beyond their clinical responsibilities.



“Our APRNs want to grow and develop beyond the clinical experience; they have so much more to contribute,” says Pamela Combs, DNP, BC-ANP, Advanced Practice Provider Manager of Community Outreach for the Taussig Cancer Institute and Co-Chair of the Professional Development Committee of the APRN Council.

Pamela Combs

“The information gathered from the survey made it abundantly clear that our nurses want to be challenged. They want more from their careers.”

CAREER DEVELOPMENT

In 2019, Combs and her team set out to develop a formal mentorship and education program designed to prepare nurses for expanded roles. When reviewing current literature, the council’s planning committee found that although many organizations offered growth opportunities for APRNs, few had well-defined, formalized curricula or guided-learning programs.

“The APRN is still a relatively young discipline in many states. We recognized that we had an opportunity — maybe even a responsibility — to set a precedent in preparing our APRNs for expanded roles beyond the bedside,” explains Combs.

Drawing on their own experiences and consultations with other advanced practice nurse managers and APRN Council members, the

committee developed the Professional Development Pathways Program, a sustainable platform through which APRNs could choose one of four areas of specialization: research, education, leadership or quality.

The program, launched in 2021, includes several key educational components, including:

- **Quarterly meetings** – In-person sessions include presentations by Cleveland Clinic content experts, roundtable discussions and role-playing with mentors. The meetings are designed to show participants how to use their new skills to address actual on-the-job situations.
- **Online learning activities**
- **Mentoring** – Each participant is matched with a mentor with expertise in their chosen pathway.
- **Culminating project** – Each participant completes a project related to their pathway that benefits their institute. The research pathway was designed to be two years long.

At program completion, each participant receives a Cleveland Clinic-recognized certificate of completion. Rice, who recently shared her project results with nursing leadership (and her family), says the experience far exceeded her expectations.

“I developed wonderful relationships with my mentor and other colleagues in high-level positions,” she says. “The opportunity helped me become more comfortable in my caregiving role and taught me how to advocate for the things I feel most passionate about.”

CUSTOMIZED GROWTH OPPORTUNITIES

Rice’s work includes the creation of a pipeline that will enable APRN students of diverse backgrounds to connect directly with Cleveland Clinic’s Office of Recruitment during their training. When on the job at

continued on p. 16

Automated Tool Helps Identify Pediatric Patients with Slow Clinical Deterioration

NEW SYSTEM USES VITAL SIGNS TO PREDICT NEED FOR FURTHER INTERVENTION

Cleveland Clinic has implemented a new tool that alerts caregivers to the early signs of clinical deterioration in pediatric patients. The automated system – Situational Awareness Vital Electronic Scout (SAVES) — was designed to circumvent the limitations of the Pediatric Early Warning Score (PEWS), a widely used yet error-prone screening approach.



Carla Anderson

“With PEWS, patient care nursing assistants would take a patient’s vital signs and manually input them into the electronic health record [EHR]. Unfortunately, manual errors such as transposed data could go

unnoticed,” explains Carla Anderson, MSN, APRN, CCRN-K, CPN, Pediatric Clinical Nurse Specialist at Cleveland Clinic Children’s. “Further, clinical nurses would ideally calculate the PEWS within an hour of taking patients’ vital signs. However, time-sensitive interventions could be jeopardized if the scoring process was delayed.”

SEEKING A BETTER WAY

Recognizing a need for greater immediacy, Anderson became part of an internal, multidisciplinary team dedicated to finding a solution. The result was SAVES, a system embedded in the EHR that translates designated vital sign values into a color-coded risk-stratification score:

- **Green** – Continue routine vital signs and scoring.
- **Blue** – Perform a SAVES-focused nursing assessment.
- **Yellow** – Huddle and develop a mitigation plan; take vital signs and reassess the patient every two hours or per mitigation orders.



- **Red** – Initiate an immediate evaluation by a physician/licensed independent practitioner and/or activate an appropriate emergency response team.

Anderson explains that although her team drew inspiration from Vital Scout™, an existing algorithm used to evaluate adult patients for clinical deterioration, SAVES was designed to use vital sign parameters that are specific to pediatric patient milestones (such as age). Scores are displayed on screen savers in unit workstations so caregivers have immediate and constant access to data.

“Pediatric patients aren’t simply miniature adults; there are a host of special physiological and emotional considerations that come into play when managing a child,” explains Anderson. “Illnesses and injuries affect pediatric patients in unique ways; SAVES is intended to address some of those differences, which can significantly affect how children should be treated.”

Anderson began her study by conducting a retrospective EHR review of pediatric patients admitted to Cleveland Clinic Children’s main campus non-ICU nursing units over an eight-year period. Her primary goal was to ascertain whether SAVES could identify a higher level of patient acuity than PEWS based on redefined warning levels. (SAVES’ two warning levels were combined into one to make it easier to compare to PEWS, which has one warning level.)

SPEED AND ACCURACY

Kris Kormos, FP-C, a Clinical Systems Analyst at Cleveland Clinic, worked with Anderson to apply the SAVES framework to existing PEWS data gathered from the EHR. Any errors were then corrected based on accurate data, resulting in a revised PEWS for each patient. This allowed a statistician to compare original and revised PEWS with SAVES. Patient data were evaluated in three ways: all data encounters per admission, first encounter per admission and one randomly selected encounter per admission.

Study researchers learned that PEWS may be less accurate than SAVES. Furthermore, SAVES appears to improve the identification of pediatric patients with slow clinical deterioration. Although the tool has been validated, Anderson stresses that caregivers must continue to think critically about patients’ hemodynamic data and clinical status while trusting their gut instinct about when and how to escalate care.

Anderson, who presented her research at the National Association of Clinical Nurse Specialists annual conference in March, says the project also highlights how advanced practice registered nurses can be at the forefront of change.

“APRNs are in a unique position to lead the development, implementation, evaluation and improvement of clinical programs,” she says. “No one has a more intimate understanding of patient needs than we do, so it’s wonderful when we have an opportunity to make a difference — and potentially save a life.”

Ultrasound Use and Nurse Characteristics Help Predict First and Overall Success of Peripheral Vascular Access

RESEARCHERS FIND NOVEL FACTORS ASSOCIATED WITH IV ACCESS SUCCESS

The use of ultrasound can help facilitate peripheral vascular access in hospitalized adult patients, according to a study led by Cleveland Clinic nurse researchers.



Andrew Callahan

In assessing factors associated with IV access success in a series of 394 medical-surgical patients at Cleveland Clinic, ultrasound use along with patient and caregiver characteristics were important predictors of first-attempt and overall peripheral IV access success, according to lead investigator Andrew Callahan, BSN, RN, Assistant Nurse Manager. He is scheduled to present the data at the Cleveland Clinic Nursing Research Conference in late April.

“We found that ultrasound was more successful than the standard landmark technique in enabling peripheral vascular access,” says Callahan.

Ultrasound was used in 227 of the 394 (57.6%) IV access attempts. Nurses were more likely to select ultrasound when managing patients with less vein visibility and palpability, and when they perceived it would be more difficult to gain access to a patient’s veins.

When asked why he wanted to study ultrasound access, Callahan explained: “Landmark techniques are important, but I thought there had to be a better way to insert IVs. I also met an elderly patient with cancer who told me that there were many nurses who assessed her arm veins, attempted to insert an IV and failed; she was frustrated.

“I listened to her story and wondered if we could use ultrasound for every patient. When researching peripheral IV access in adults, I found papers in the peer-reviewed literature that showed the effectiveness of ultrasound guidance for placing IVs. I presented findings from the ultrasound literature review to my manager, who indicated that our research department was thinking about studying difficult IV starts.”

Study participants consisted of medical-surgical patients who required IV access and nurses who attempted IV access on multiple nursing units. Nurses agreed to complete case reports that described their perceptions about more than 30 factors associated with successful IV insertions. Data were also collected from medical records.

Of the cohort assessed, the first-attempt success rate was 20% lower than the overall IV access success rate, which was over 80%. In multivariable modeling, multiple factors were associated with first-attempt and overall IV access success. Of the factors that correlated to first-attempt IV access, two were related to patient veins, four were related to nurses’ experience and perceptions about IV access, and one was associated with patient verbalization of difficult IV access. In addition, vein visibility and palpability were associated with overall IV access success.

“Since use of an ultrasound device was an important predictor of success, the hope is to facilitate nurse autonomy by teaching nurses how to use the imaging modality to reduce the number of IV attempts their patients require. Fewer attempts can decrease supply usage, nursing time and other resources needed to establish IV access,” Callahan says. “Patient satisfaction is also important. When I am using the ultrasound to start peripheral access, patients seem more at ease.”

Since overall success in IV access did not reach 100%, future research findings may be used to justify the creation of a systemwide vascular access team, he adds.



Researchers hope to reduce the number of failed IV insertions by using ultrasound guidance.

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Development Program Provides New Pathways for APRNs *(continued)*

Express Care Online in Lyndhurst, Ohio, Rice continues to educate her colleagues about diversity and cultural competence. Her experience in the program also motivated her to pursue a doctoral degree.



Tamara Howell

The diverse population of patients Tamara Howell, MSN, APRN, CNP, encounters while working in Cleveland Clinic's primary care facilities fueled her long-standing interest in clinical research — and the Pathways Program. “My primary interest is improving healthcare disparities and understanding the factors that make it difficult for some patients to access the help they need,” she explains. “I’ve been incredibly lucky to have found an unparalleled nursing research program led by talented, generous nurse scientists willing to share their expertise.”

Howell, an APRN at Cleveland Clinic Euclid Hospital and Willoughby Hills Family Health Center, has completed Year 1 of the program. In her culminating project, she will assess the physiological and demographic factors (including sexual orientation) of women aged 50 years and older to understand whether relationships exist between those characteristics and satisfaction with life. Pending IRB approval, she hopes to begin the research this year.

“I’ve loved every minute of the program so far and recommend it to anyone interested in nurse research,” she says. “New knowledge and hands-on involvement helped prepare me for graduate studies in a way that no other experience could provide.” Inspired by the Pathways Program, Howell began her own doctoral studies in 2022.

The program is currently available at Cleveland Clinic Florida and all Cleveland Clinic facilities in Ohio. Plans are underway for expansion in the healthcare system's international locations as well. “Our participants are making huge strides in patient care, quality outcomes and job satisfaction, all of which enhance employee retention and Cleveland Clinic's mission to educate those who serve,” says Combs. “This is only the beginning.”



Shaneeka Rice presents her project to colleagues and family at the end-of-year Pathways Program completion ceremony.

Upcoming Events

ADVANCED PRACTICE REGISTERED NURSE PHARMACOLOGY CONFERENCE

SAVE THE DATE

Thursday, July 13, 2023 and Tuesday, Nov. 14, 2023

Hybrid (in-person and live-streaming) events

Cleveland Clinic Administrative Campus
Building 3, Lower-Level Auditorium
3050 Science Park Drive, Beachwood, OH 44122

Save the date for an event dedicated to the pharmacologic management of disease in an ever-changing healthcare environment. Hot topics include obesity, palliative medicine, chronic kidney disease, inpatient and outpatient management of adult and pediatric patients with diabetes, and much, much more.



9TH ANNUAL NURSING INNOVATION SUMMIT

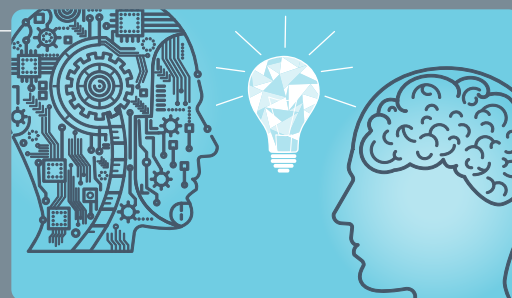
Thursday, Oct. 26, 2023

In-person event

Cleveland Clinic Administrative Campus, Building 4, 4th floor,
3175 Science Park Drive, Beachwood, OH 44122

Join us for a one-day conference dedicated to providing nurses with the information and motivation they need to put their ideas into action. Attendees will learn how to begin the innovation process, develop their ideas and incorporate innovation into practice.

For more information or to register, visit clevelandclinic.org/nursinginnovation.



EVIDENCE-BASED PRACTICE WORKSHOP

Searching, Critiquing and Synthesizing the Evidence

Thursday, June 8 - Friday, June 9, 2023

In-person event

Cleveland Clinic Administrative Campus, Building 3,
Auditorium, 3050 Science Park Drive, Beachwood, OH 44122

This two-day event is designed to engage and educate participants in the meaning and work of evidence-based practice.

Register today at clevelandclinic.org/ebptwoday.

For more information, please contact Lorraine Novosel, PhD, RN, 216.445.9317 | novosel@ccf.org.



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Awards and Honors

Dianna Copley, DNP, APRN-CNS, ACCNS-AG, CCRN, received the 2023 Susan B. Davidson Service Award from the National Association of Clinical Nurse Specialists (NACNS). Copley, Clinical Nurse Specialist in Cleveland Clinic's surgical intensive care unit, was honored for her extraordinary service to NACNS.

Cleveland Clinic's Akron General Satellite Emergency Departments in Bath, Stow and Green, Ohio, received the 2022 Guardian of Excellence Award. Presented by Press Ganey, the award honors healthcare institutions that have reached the 95th percentile for patient experience.

Cleveland Clinic Hillcrest Hospital received the Care Award from the International Board of Lactation Consultant Examiners® for demonstrating practices that promote, protect and support breastfeeding and the lactation consultant profession.

Cleveland Clinic Hillcrest Hospital received the Maternity Care Best Practice Award: Bag-Free Designation. Presented by the Ohio Department of Health, Ohio Lactation Consultant Association and Ohio Breastfeeding Alliance, the honor recognizes hospitals whose practices align with Baby Friendly USA certification requirements and the organizations' goal of reducing infant mortality.

Dena Jo Stuart, BSN, RNC-MNN, CLC, Nurse Manager of Childbirth Education and Lactation at Hillcrest Hospital, received the 2022 Breastfeeding Medicine Advocacy Award for her outstanding work in support of breastfeeding patients and their babies.

Cleveland Clinic Hillcrest Hospital was named one of America's Best Maternity Hospitals by *Newsweek* magazine in 2022. The honor was given in recognition of the high-quality patient care the hospital provides through all stages of pregnancy.

Cleveland Clinic's **Miller Pavilion** and **cardiothoracic** and **vascular operating rooms** on main campus received Go Clear (Gold Level) awards from the Association of periOperative Registered Nurses. The award, which was also presented to **South Pointe Hospital** and **Cole Eye Institute**, recognizes medical facilities for their commitment to protecting patients and caregivers from the hazards of surgical smoke.

Cleveland Clinic's main campus earned Get With The Guidelines® (Gold Plus) awards in **adult resuscitation**, **stroke care** and **heart failure recognition** from the American Heart Association. It also earned a Silver award in **pediatric resuscitation**. The prestigious awards are presented annually to medical institutions that promote consistent adherence to the latest scientific guidelines and recommended clinical practices.

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In addition to our biannual *Notable Nursing* print publication, The Stanley Shalom Zielony Institute for Nursing Excellence sends out a monthly e-newsletter also called *Notable Nursing*. Subscribers can read the latest articles written by experts from the Zielony Institute.

clevelandclinic.org/nursingnews



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The Stanley Shalom Zielony Institute for Nursing Excellence encompasses all nurses and nursing activities at Cleveland Clinic. Its staff of nearly 35,000 nursing caregivers includes 2,668 advanced practice nurses. All provide compassionate care at the highest level of professional expertise through specialty-based units in hospital, outpatient and surgical settings at Cleveland Clinic locations in Northeast Ohio, Florida, Nevada, Canada, Abu Dhabi and London. Ten Cleveland Clinic hospitals (Main Campus, Akron General, Avon, Euclid, Fairview, Hillcrest, Lutheran, Marymount, South Pointe and Cleveland Clinic Abu Dhabi) have been granted Magnet® recognition by the American Nurses Credentialing Center, two (Medina and Weston) have achieved Journey to Magnet Excellence® designation, and one (Medina) has achieved Pathway to Excellence® designation. Cleveland Clinic is a nonprofit, multispecialty academic medical center integrating clinical and hospital care with research and education for better patient outcomes and experience. More than 5,658 staff physicians and researchers provide services through 20 patient-centered institutes. Cleveland Clinic is currently ranked one of the nation's top hospitals by *U.S. News & World Report*.
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