2021 National Teaching Institute Evidence-Based Solutions Abstracts

EB1: A Protocol to Decrease CCU Length of Stay After Transfemoral Transcatheter Aortic Valve Replacement

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Purpose: Transfemoral transcatheter aortic valve replacement (TF-TAVR) was initially approved for patients who were inoperable or at high risk for surgical valve replacement. These patients had high incidences of death and morbidity, which required critical care post procedure. As the procedure has evolved, many of these patients no longer require critical care. A clinical pathway- and nurse-driven protocol was developed to decrease the amount of time patients with stable TF-TAVR stay in critical care. **Summary:** Clinical pathways facilitate early discharge of the patient with a TAVR. In our community hospital, cardiologists are not in house 24/7. Most patients with TF-TAVR are ready to transfer later in the day, when the on-call cardiologist's priorities do not include assessing the readiness for transfer of stable patients. A clinical pathway and nurse driven protocol were developed to decrease the length of stay in the critical care unit for the stable patient who has undergone TF-TAVR. This protocol was intended to have a dual effect: free the critical care beds for critically ill patients and decrease the length of time the patients with TF-TAVR were in critical care; in turn, the effect would be to help decrease total hospital length of stay. In collaboration with the lead structural heart cardiologist and nurse practitioner, order set changes were made, and a clinical pathway was developed to allow the cardiac critical care nurse to activate nurse-driven protocol transfer orders. Education was provided to the critical care nurses on the criteria needed to activate the transfer orders to the cardiac telemetry floor. Education was provided to the cardiac telemetry floor registered nurse and certified nurse assistant staff on the care of patients after their TAVR procedure. **Evaluation/Outcome:** In the 6 months before implementation, 32 TAVRs were performed. The average time to transfer orders was 27.09 hours. In the first 6 months after implementation of the nurse-driven protocol, 21 patients who had undergone TF-TAVR had nurse-driven protocol orders activated by the physician, and 15 of these patients met criteria for transfer. The average time to transfer for these 15 patients was 8.90 hours. The reduction in critical care unit (CCU) length of stay was maintained. In follow-up a year later, 30 of 35 patients had the nurse-driven protocol activated; 15 of these patients were transferred in an average of 9.62 hours. None of these patients required transfer back to the CCU.

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EB2: A Soft Cloth Alternative Does Not Make a Derriere HAPI: A Pilot of Cloth Alternatives

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Purpose: Hospital-acquired pressure injuries (HAPIs) are largely avoidable with the use of prevention measures, a skin cleansing process for incontinence, and early

identification of at-risk patients. The need for a softer cloth for incontinence care for patients with skin breakdown or who are susceptible to skin breakdown was identified. The purpose of our project was to pilot soft cloth alternatives to washcloths for incontinence care in 2 units at a 650-bed, academic, level 1 trauma center. **Summary:** Our team conducted a root cause analysis (RCA) of HAPIs in a progressive care unit with the highest HAPI incidence. Our team conducted a literature review and the evidence demonstrated a correlation between incontinence-associated dermatitis (IAD) and the use of a rough cloth leading to skin breakdown. Using the data from unit HAPI prevalence and the RCA, the team chose to pilot an alternative to the traditional washcloth for incontinence care. The team implemented a 3-phase product pilot comparing a baby wipe, a highly absorbent, nonwoven dry cloth, and a barrier-cream cloth. The team developed and provided education during walking rounds and staff meetings, and in an interactive video. Staff participated in a survey after each phase of the pilot. **Evaluation/Outcome:** Goals for the project were to improve outcomes by decreasing the number of HAPIs and treating IAD so it would not develop into pressure injury. Data collected included staff surveys on products piloted and patient skin surveys for IAD and HAPIs. The IAD rates decreased 1% with the use of soft cloth and barrier-cream cloths. The HAPI prevalence improved from 3 HAPIs in the first quarter of 2020 to 1 HAPI in the third quarter of 2020. Of the staff surveyed, 97% thought a gentler skin product was needed for perineal care, 92% thought a softer product would prevent HAPIs, and 86% thought a soft cloth would promote better cleansing of the skin and patient comfort. Compliance with the skin cleansing process has improved.

EB3: Alarm Adjustments: A Simple Solution to Decrease False Physiological Monitor Alarms

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Purpose: Alarm fatigue results from the large number of inaccurate and nonactionable alarms produced by monitoring devices in a critical care setting. Alarm fatigue is recognized by The Joint Commission as a patient safety concern. When nurses experience alarm fatigue, critical patient events may go unnoticed and patient harm may occur. The greatest number of alarms in a critical care unit is from physiological monitoring. **Summary:** Our goal was to make the alarms actionable. An 8-day audit of all alarms in a 20-bed cardiac intensive care unit (CICU) was completed using an alarm-reporting tool. Results indicated that the most alarms were generated from pulse oximeters, accounting for 39.3% to 70.3% of all parameter alarms over 3 CICUs. The Clinical Alarm Management Compendium recommends targeting easy solutions to focus on making immediate improvements in the volume of alarms. Best practices for default alarm settings were determined for cardiac critical care. The results of the audit and suggested alarm settings were presented to the hospital-wide Clinical Alarm Committee and the Critical Care Quality Committee. Default changes were agreed upon. The low-parameter alarm for oxygen saturation measured by pulse oximetry (Spo_2) was changed from 90% with a 6-second delay to 88% with a 16-second delay. This alarm was also changed from a low-priority alarm to a medium-priority alarm to generate attention in a timely manner. Nurse education on the new default changes was provided. **Evaluation/Outcome:** Between the first 8-day audit and the second 8-day audit, the CICU consolidated and added 4 more beds. The GE Monitoring system was updated, and default changes were made. Initial results showed there were 14 822 parameter alarms for low Spo_2 occurring over 8 days in 20 beds. After the default changes, the follow-up alarm audit showed a reduction in parameter alarms for low Spo_2 to 2414 in 24 beds with no patient safety concerns or untoward events related to Spo_2 monitoring.

EB4: Central Dressing Quality Improvement Initiatives Reduce PICU CLABSI Rate

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Purpose: Hospital-acquired infections (HAIs) result in the loss of thousands of lives and cost the health care system billions of dollars each year. Central catheter–related bloodstream infections (CLABSIs) are a leading cause of HAIs and are preventable. The purpose of this project was to reduce the incidence of CLABSIs in a 24-bed pediatric intensive care unit (PICU). Our goal was to decrease the number of CLABSIs and the standardized infection ratio (SIR) in fiscal year (FY) 2019 from 6 and 1.3, respectively, to no more than 4 and 0.5, respectively, in FY 2020. **Summary:** Our quality

improvement (QI) project was devised by a nurse-driven, multidisciplinary, HAI-prevention committee consisting of PICU bedside nurses, a clinical nurse specialist, a nurse manager, an infection prevention nurse specialist, and pediatric critical care and infectious disease physicians. This group conducted a root cause analysis (RCA) of our unit's CLABSIs from 2017 to 2019. The RCA data identified central catheter dressing maintenance as an area for potential improvement. The committee subsequently reviewed the literature on evidence-based CLABSI prevention practices related to central catheter dressings and inquired about practices used in PICUs of similar acuity. On the basis of our findings, we devised 3 QI interventions to reduce the incidence of CLABSIs in our PICU: (1) initiation of daily central catheter–dressing audits of every central catheter in our unit, (2) standardization of dressing supplies, and (3) designation of specially trained nurses to maintain all central catheter dressings. **Evaluation/Outcome:** The primary outcome was a reduction in CLABSI count and SIR in the postintervention period compared to preintervention. For FY 2019, our PICU CLABSI count was 6 and SIR was 1.3. For FY 2020, the CLABSI count and SIR decreased to 2 (67%) and 0.458 (65%), respectively. Secondary outcomes included a culture change in our unit regarding central catheter–dressing maintenance with ongoing, multidisciplinary discussion for practice improvement. Other interventions unrelated to our QI project were introduced during our study and likely contributed to the overall decrease in CLABSIs in our PICU.

EB5: Challenge Accepted: Using the Evidence to Inspire Wellness at Work

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Purpose: Nursing staff face challenges when it comes to prioritizing their own wellness, often putting their patients' wellness before their own. Engaging staff in self-care activities provides an opportunity to support nurses' own health needs and develop the resilience needed to thrive. To better facilitate a healthy work environment, a 2-month wellness challenge intervention was implemented, incorporating positive-psychology evidence to enhance work-life balance, resilience, and burnout. **Summary:** Results of meta-analyses indicate that implementing positive-psychology interventions in the work environment can influence positive states, including well-being and engagement. Self-care is a necessary measure to build and sustain resilience. We incorporated 5 evidence-based interventions—3 good things, random acts of kindness, gratitude, social connections, and mindfulness—into a wellness challenge. During the challenge, staff participated in predetermined wellness activities focused on emotional and physical well-being. Staff participated in a competition in which each activity earned a wellness ticket; the winner was the person who submitted the most tickets. Presurvey questions, using validated scales, were used to measure baseline work-life balance, resilience, and burnout rates. The same survey was then administered for postintervention data. A total of 52 staff members participated in the intervention, with a total of 1866 wellness challenge tickets submitted. **Evaluation/Outcome:** Our data showed more than a 20% increase in the percentage of positive responses in 11 of 16 categories, measuring work-life balance, resilience, and burnout. There was a 36% change in the percentage of staff members who changed personal plans because of work. Our intent was not to test this intervention during a pandemic, but due to COVID-19, our staff faced personal protection equipment and staffing shortages, change fatigue, and homelife disturbances. Despite these challenges, our data showed an increase in the percentage of positive responses in every measure surveyed. Although the nursing team continues to face pandemic-related challenges, wellness behaviors continue to be evident in the work environment.

EB6: CNS-Led Implementation of Manual Prone Positioning in a Community Hospital ICU During a Pandemic

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Purpose: Prone positioning is recommended for patients with moderate to severe acute respiratory distress syndrome (ARDS). Techniques and equipment exist to assist nurses in turning patients to the prone position. Previously, an intensive care unit (ICU) had low volumes of patients needing prone positioning. Anticipating a surge of ARDS due to coronavirus disease 2019 (COVID-19), options for how to place patients in the prone position was investigated. Delaying prone positioning influences effectiveness of the therapy. Implementation of manual prone positioning was needed to meet ICU needs during a pandemic. **Summary:** The clinical

nurse specialist (CNS) reviewed guidelines, protocols, and literature to develop criteria, a prone preparation checklist, and a manual proning technique. This new manual proning process was vetted with the intensivists and communicated to all ICU registered nurses (RNs), patient care assistants (PCAs), and respiratory therapists. After the CNS completed rapid experiments to determine best techniques to safely prone patients and reduce complications (eg, pressure injuries, tube and catheter dislodgement), a quick 1-minute video was created and disseminated. Bedside coaching by the CNS and daily collaboration with the CNS, primary RN, respiratory therapist, and intensivist focused on coordinating the patient's plan of care to include proning therapy. Rapid implementation of manual prone positioning during the COVID-19 pandemic ensured timely initiation of an evidence-based therapy. Without execution of this project, delays in proning therapy could have led to worse patient outcomes and death. Next steps include formalizing the prone positioning guidelines and using additional techniques to reduce proning complications. In the event of another COVID-19 surge, the ICU is prepared to meet the needs of patients with moderate to severe ARDS who need prone positioning. **Evaluation/Outcome:** Data were collected on all patients with confirmed COVID-19 who required mechanical ventilatory support and who were admitted to the ICU from March 1 to June 30, 2020. Of 55 patients, 14 were manually placed in the prone position for an average of 3.5 days on the basis of criteria met for moderate to severe ARDS. Six of the 14 patients (43%) survived to discharge. Manual prone positioning was initiated on all 14 patients on the day therapy was ordered. Three patients were over the recommended weight limit to manual prone position, and the prone and kinetic therapy bed was used, although there was up to a 6-day delay on receiving the bed because of statewide demand.

EB7: Comparative Study of a Fecal Management System to Improve Patient Safety Outcomes

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Purpose: The purpose of this study was to evaluate and implement a new fecal management system (FMS) to reduce skin breakdown and to prevent the transmission of *Clostridium difficile,* promoting safer patient outcomes. In the acute care setting, reducing the risk of perineal dermatitis and transmission of infections, particularly *C difficile,* is a priority. **Summary:** Fecal management systems are a necessity for stool containment and prevention of contact dermatitis. Conventional internal FMSs using a balloon at the catheter tip require manual pressure in the rectal vault potentially above the internal microvasculature hydrostatic pressure. Poor drainage increases intrarectal pressure and the risk of spontaneous expulsion and regular peristaltic contractions may occlude the balloon. These challenges necessitated the evaluation of a new FMS that incorporates a stent rather than the traditional balloon. In April 2018, the initial planning meeting for this study included the clinical nurse specialist, wound-care nurses, and bedside clinicians, and was introduced to the Mary Washington Healthcare (MWHC) Nursing Resource Council. By the final quarter of 2018, the MWHC Shared Governance Council approved the trial for the new FMS (Qora; Consure Medical). The trial of the new device ran between June and August 2018, with 20 patients. The interdisciplinary team provided education including videos through emails, instructional flyers, and onsite education. **Evaluation/Outcome:** Evaluations identified 14 devices with no leakage and 4 with mild leakage resulting in soilage on pad. Sixteen of the devices were not expelled; 2 were expelled but easily replaced. The nurses thought what was best about the product was hands-free insertion, ease of insertion, device stayed in place, and reduction in smell. Nurses recommended change to the Qora FMS. At MWHC, from December 2018 through October 29, 2019, 12 FMS-related incident reports were submitted. From November 2019 to the present, only 5 incident reports have been submitted. Overall, these results suggest internal stented FMS is safe and effectively contains fecal material when used judiciously and checked regularly.

EB8: COVID-19 Response: Tiered ICU Staffing Approach

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Purpose: The progressive care unit (PCU) to intensive care unit (ICU) Bridge Program was developed at our facility to combat the increasing number of patients in the ICU during the coronavirus disease 2019 (COVID-19) pandemic. The goal of the Bridge Program was to elevate and empower PCU nurses to perform basic ICU-level skills and promote a culture of safety while maintaining

a positive and professional work environment. **Summary**: The anticipated surge of patients during the pandemic presented the potential limit of ICU nurses with the skills to care for this increased number of patients. A tiered staffing model was developed that would allow PCU nurses to perform ICU-level care under the direction of a skilled ICU nurse. Nurses participating were required to complete the American Association of Critical-Care Nurses COVID-19 online course before attending a skills session. The nurses completed 2 shadow shifts with experienced critical care nurses in the ICU, based on staffing and preceptor availability. They then attended a skills fair that included stations on rapid-sequence intubation, pressure catheters, proning, 12-lead electrocardiogram procedure, ventilator management, ventricular drain management, and a COVID-19 disease overview. The intent of the skills fair was to ensure nurses were exposed to various critical situations that they may not have experienced during their shadow shift. Twelve skills sessions were offered. **Evaluation/Outcome**: At the end of the Bridge Program, 33% of the PCU nursing workforce was provided the education and training to provide basic ICU-level skills under the tiered nursing model. More than two-thirds (69.1%) of the program participants thought the program had a considerable effect on patient care; 22.2% thought the program had a moderate effect on patient care; and 8.6% thought it had a slight effect on patient care. The Bridge Program allowed PCU nurses to safely participate in the care of critical patients. Participant outcome data demonstrated participants thought the program had a positive effect on their ability and confidence to care for critically ill patients.

EB9: Creating a Culture of Mobility: A Quality Improvement Project

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Purpose: Continuing to have patients move, even while hospitalized, is crucial. The incidence of hospital-acquired pressure injuries (HAPIs) has an important relationship with mobility. This quality improvement project was aimed at increasing mobility on a 24-bed telemetry unit. Before implementation, there had been 2 HAPIs on the unit, and it was proposed that increasing patients' mobility, specifically getting patients out of bed, would have a positive impact on the rate of HAPIs. **Summary**: Nurse-led mobility interventions increase the number of patients who mobilize and help sustain a culture change on the unit. A plan-do-study-act methodology was used for this project. Initial interventions focused on education for nursing staff and certified nursing assistants (CNAs). The hospitalist group allowed for a nurse-driven approach by placing orders for progressive mobility and empowering the nurse to mobilize the patient as tolerated. Distance keys for ambulation were created for the unit, and signage was created to remind staff and patients about mobilization. The CNA and nurse workflows were adjusted to allow the CNA group to have more focus on activities of daily living and mobility. A list of essential mobility items for the patient rooms was created with the assistance of the physical therapy team, and the patient's mobility level was written on the whiteboard in each patient's room and updated each shift. **Evaluation/Outcome**: Data were collected from July 2019 to September 2020. Chart audits were performed to evaluate the number of patients who got out of bed, which was characterized by sitting in a chair, dangling at the edge of bed, or ambulating. Initially, only 11% of patients got out of bed. This percentage increased to 24% during the education phases of the project. After implementation of the workflow changes, the percentage increased to 41% of patients getting out of bed. Before project implementation, there were 2 HAPIs on the unit; during the project there was 1 HAPI in January 2020 and 1 in March 2020, during the height of the coronavirus disease 2019 (COVID-19) pandemic. There have been none since. There were also no moderate-harm falls during the project period.

EB10: Critical Care Nursing Outreach Service Is a Win for All

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Purpose: The Nursing Incident-Based Peer Review Committee at our medical center identified that 40% of referred cases experienced a delay in or nonescalation of patient care. Delay in escalation of care often results in poor patient outcomes and dissatisfaction among nursing staff. The goal of this project was to create a critical care nursing outreach service (CCNOS) to facilitate escalation of care on inpatient units, provide surveillance of decompensating patients with timely activation of the rapid response team (RRT), and reduce sepsis-related

death. **Summary**: A literature review and focus group interviews with nurses were conducted. These interviews identified multiple breaks in the efferent and afferent arms of RRT activation and barriers to escalation of care. A survey was also conducted to identify nurses' confidence and ability to escalate care. In addition, the ratio of RRT events per hospital bed was 50% lower than the nationally reported ratio for similar-sized hospitals. On the basis of this information, a trial was initiated to determine if the role of a CCNOS would increase RRT events and facilitate timely escalation of care. The CCNOS role was defined as follows: surveillance of all inpatient units, using an early-warning score to screen for decompensating patients; activation of RRT; cardiac arrest response; assessment of all transfers from the critical care unit; and response to nurse request for a critical care nursing consultation to support escalation of care. **Evaluation/Outcome**: Postimplementation surveys completed by nursing demonstrated an increase from 40% to 64% in confidence to escalate care. The sepsis observed-to-expected (O/E) mortality ratio decreased from 1.25 in 2016 to 0.86 in 2019. The hospital O/E mortality ratio decreased from 1.04 in 2016 to 0.76 in 2019. Rapid response team events increased from 1.5 events per 24 hours in 2016 to 3 events per 24 hours in 2019. This innovative approach facilitated nurses' ability to communicate concerns and escalate care in a collaborative team environment, with demonstrated benefits in patient outcomes, including mortality ratios.

EB11: Culture Change: Care in Place to Meet the Varying Needs of the Patient

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Purpose: The intent for this project was to prevent unnecessary patient transfers when level of care increased, thus providing care in place (CIP). Historically, in our organization, patients on a medical-surgical (M/S) unit were transferred when they required intermediate care (IMC), resulting in placement bottlenecks, delayed patient care, decreased patient satisfaction, and increased numbers of transitions in care and costs. **Summary**: Nursing leadership chose to use the evidence-based strategy of CIP to address unnecessary level-of-care transfers. A quality improvement (QI) team designed a project to teach additional skills to staff on 3 units so that nurse competencies matched the clinical needs of the patient. The team collaborated with the nursing director and unit managers to create individualized unit education plans. Curriculum focused on high-volume reasons that elicited a level-of-care transfer and identified gaps between M/S and IMC nurses. After CIP implementation, the rapid response team (RRT) increased rounding to mentor staff and ensure patient safety. Clinical nurses were encouraged to consult the RRT as they started caring for patients who required an increased level of care. The QI team reviewed RRT calls and audited charts to assess for coaching opportunities. Nursing leadership collaborated with providers throughout the upskill process. The QI team rounded frequently to support staff and ensure achievement of CIP goals. **Evaluation/Outcome**: Transfers of patients off the units with new skills training decreased from an average of 10 per month to 3 per month after class completion. Concurrently, the percentage of patients needing IMC increased from 12.5% to 42.3% on these units. This occurred without an observed increase in code blue incidence. As expected, RRT calls increased from 43 per month to 51 per month. Organizations can safely implement CIP models to meet the needs of the patient and mitigate associated risks and costs of transferring patients. Key success factors include individualized education based on identified needs, ongoing surveillance, monitoring, and celebrations of achievements.

EB12: Debriefing for Resuscitation Performance in Inpatient Cardiology

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Purpose: To implement interdisciplinary postarrest debriefing and evaluate its effects on resuscitation performance across 3 inpatient cardiology critical and progressive care units. Specifically, we aimed to decrease the number of codes, improve patient outcomes, and increase adherence to the basic tenets of advanced cardiac life support. **Summary**: In-hospital cardiac arrest is common and deadly. Each year in the United States, 200 000 adults are resuscitated; < 20% survive to discharge. Debriefings discuss actions and thought processes to improve future performance. The debriefings may be "hot" (ie, occurring minutes to hours after an adverse event) or "cold" (ie, occurring days to weeks later). Results of a large meta-analysis showed debriefing consistently improves performance by at least 25% and postarrest

debriefing is recommended by the American Health Association (AHA) as a best practice. At baseline in 2018, hot debriefing was sporadic and informal. Cold debriefing was siloed by discipline and did not include bedside staff. Within a continuous quality improvement framework, we developed an evidence-based process for both types of debriefing using current AHA guidelines and high-quality case reviews. Hot debriefings lasting approximately 10 minutes are facilitated by the charge registered nurse or ranking physicians within the same shift as when the code was called, using a simple written tool. Cold debriefings include unit leaders and chart audits and are limited to the approximately 15% of codes with unusual features. Debriefing was fully implemented in the cardiac care unit in January 2019 and expanded to cardiac progressive care units in June 2019. **Evaluation/Outcome:** There were 13% fewer codes in 2019 than in 2018. If current trends continue, the code rate in 2020 will be lower still. Timely shocks (56% vs 73%) and intact neurological status postarrest (64% vs 83%) improved significantly. Timely epinephrine administration remained high (85% vs 88%). Return of spontaneous circulation (68% vs 66%) and survival to discharge (21% vs 18%) rates did not change. Per the literature, the strongest outcomes for debriefing interventions are survival to discharge and compression quality. We currently are unable to obtain defibrillator accelerometer data. Survival time to discharge was unchanged. Nonetheless, interdisciplinary postarrest debriefing was associated with fewer codes, better neurological status, and faster defibrillation.

EB13: Decreased Catheter Use and CAUTI With a Nurse Driven Protocol and Order Set

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Purpose: The catheter-associated urinary tract infection (CAUTI) standardized infection ratio (SIR) was above the organizational goal in an 800-bed academic health system. In response to a CAUTI event analysis, an enhanced nurse-driven removal protocol (NDRP) for urinary catheters and an indication-based urinary management order set (UMOS) were implemented. This project evaluated the effect of the NDRP and UMOS on the catheter standardized utilization ratio (SUR) and, because use contributes to CAUTI, on the SIR. **Summary:** A task force of nurses, hospital medicine physicians, and infection preventionists reviewed CAUTI events and catheter prevalence. Prolonged catheter use was a prominent theme, including infrequent use of the existing NDRP (which required provider selection in the initial order) and delayed discontinuation orders. Daily indication prompts did not foster decreased use. Decreasing unnecessary use is critical in CAUTI prevention. The task force revised appropriate catheter indications. The Information Services department built the indication-based UMOS that promotes external urinary management when appropriate and defaults to the NDRP for 6 of 8 indications. Nurse-driven urinary management of postcatheter removal was added to the NDRP. House-wide nursing education was disseminated in a tool kit for nurse leaders, including evidence, SUR and SIR data, posters, presentations, and leader rounding tools. Champions presented at unit-based councils. Providers were educated on updated indications and ordering processes. **Evaluation/Outcome:** Sustained decreases in SIR and SUR followed NDRP/UMOS implementation in December 2018. The SUR remained lower than at pre-implementation in 6 of 7 subsequent quarters. A 30% decrease in SUR was noted in fiscal year (FY) 2018-2019 from FY 2017-2018: 0.933 to 0.65. The SIR remained lower than before implementation in 6 of 7 subsequent quarters. A 29% decrease in SIR was noted in FY 2019-2020 from FY 2018-2019: 0.764 to 0.539. Catheter prevalence nurse-leader rounds have increased and been sustained. Leader rounding includes best practice for catheter maintenance, potentially contributing to a decreased SIR.

EB14: Digital Versus Paper Documentation of Cardiopulmonary Arrests (Code Blue) in the CICU

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Purpose: To reduce the number of incomplete code blue record documentations in the cardiac intensive care unit (CICU). In 2017, CICU nurses and physicians met to review recent code blue events within the CICU and identified critical clinical actions and timings that were missing in the documentation. Also, staff determined that some code blue records were missing entirely from patient charts (lost, undocumented, or not scanned). **Summary:** A digital application called Code Blue Assist was designed to capture the chronological events of a cardiopulmonary arrest in real time. The application contained preset actions that could be documented at

the exact time of the event by the touch of a button. It also included reminders and timers for future critical actions, such as a pulse check and that the next round of epinephrine was due. In August 2019, the project was approved to be tested and compared to paper documentation. Code Blue Assist was downloaded onto a tablet to be used during the testing phase. Preimplentation data were collected by reviewing 30 randomly selected code blue arrests that occurred in the CICU from January 2018 until September 2019. Nurse champions were then selected and given a 1:1 in-service training on using the digital application. One nurse champion was identified each shift to use the Code Blue Assist application. Per standard practice, 1 nurse was designated at the time of the event to record via paper charting. In October 2019, postimplementation data were collected on any code blue events that occurred in the CICU. **Evaluation/Outcome:** Of the 30 code blue records randomly selected in August 2019, 70% were incomplete and 30% were entirely missing from the chart. Only 1 cardiopulmonary arrest occurred in the CICU in October 2019. The paper documentation of the code was missing critical actions and timings, and the only events recorded were the medications given. However, using the digital application, all critical events were recorded in real time and in chronological order. A digital documentation application showed that it could reduce the amount of incomplete code blue record documentations in the CICU.

EB15: Don't Let Your Flip Be a Flop

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Purpose: In 2020, the critical care team at George Washington University Hospital acted quickly to develop and implement a novel pressure ulcer prevention protocol for critical patients treated with prone positioning. The sudden nature of the coronavirus disease 2019 (COVID-2019) pandemic created a logistical nightmare as hospitals competed for products that were not previously used to assist with proning. Nurses used ingenuity to design and implement hybrid protocols to achieve the goals of patient safety and reduction of adverse outcomes. **Summary:** The project commenced in March 2020 in the intensive care unit (ICU) of a large level 1 trauma tertiary academic hospital in Washington, DC. The lead for the project was a critical care clinical nurse educator. The team for the project included the ICU registered nurses (RNs), the critical care providers, and the wound care team. Supplies obtained included silicone-bordered foam dressings, nonbordered foam dressings, patient positioning systems, and air-fluidized positioning pillows. A meeting was held to practice technique and digitally record the process. Clear delineation of roles was made before the manual proning of each intubated patient. A designated team member ensured proper placement of preventive foam dressings and air-fluidized pillows before the prone attempt. The wound care team rounded to help ensure proper placement of pillows and dressings. The ICU educator, wound care RN, or nurse practitioner was in the room for first 15 prone positionings to ensure competency and correct body positioning. An additional round of just-in-time training videos and step-by-step slide shows were created, disseminated, and reviewed with the team. **Evaluation/Outcome:** None of the patients for whom the proning protocol was followed as instructed had evident skin breakdown. This process was replicated with 33 intubated patients, including 1 patient receiving extracorporeal membrane oxygenation and 28 patients positive for COVID-19. During this time of crisis, the critical care nurses were able to make their optimal contribution to the patients' need as well as the team. The creation of a well-focused team gave us the opportunity to expand current knowledge and practice standards.

EB16: Hand Hygiene Compliance Improvement in a Surgical Intensive Care Unit

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Purpose: A registered nurse–led process improvement project within the surgical intensive care unit (SICU) aimed to increase hand hygiene (HH) compliance by at least 95%. In January 2019, HH compliance for the SICU was at 68%, with health care–associated infections (HAIs) including 1 central catheter–related bloodstream infection (CLABSI) event and 1 catheter-associated urinary tract infection (CAUTI) event. We performed a root cause analysis using an evidence-based solution (EBS) and found problems such as staff having difficulty accessing hand-sanitizer stations and staff having too many items in their hands when entering a patient's room. **Summary:** A review of literature revealed an ICU study in which researchers reported it took nurses an average of 62 seconds to leave a patient's bedside, walk to a sink,

wash their hands, and return to patient care. In contrast, an estimated one-fourth as much time is required when using alcohol-based hand hygiene placed at each patient's bedside. After environmental observation and using EBSs, hand-sanitizer dispensers were relocated to the outside area of patient rooms, in hallways, and other locations for easy access. Other EBSs that used live observation and real-time feedback include the following: discussing correlation between HH practices and HAIs during daily huddles; conducting routine HH audits that collect feedback to and from the staff; collecting results with feedback to and from the staff; developing a culture of safety by implementing HH reminders that made accountability the social norm; implementing discipline-specific education that placed HH within the context of the employee's daily work; and adopting processes for institutional safety climate that received leadership support. **Evaluation/Outcome:** After EBS, SICU HH compliance for fiscal year 2019 increased from 68% in January and February to 81% in March and April, to 99% in May and June. Compliance of 95% or more was sustained through April 2020, and there were fewer HAIs. According to preproject fourth-quarter data (2018-2019), 1 *Clostridium difficile* infection occurred in November, 1 ventilator-associated event occurred in December, and 1 event each of CLABSI and CAUTI occurred in January. Postproject data from February to August 2019 reflected no occurrences of the following: CLABSI, CAUTI, infection-related ventilator-associated complication, and possible ventilator-associated pneumonia; there was 1 *C difficile* infection during March. This project has reflected sustainability, as indicated by continued high compliance as of January 2020. Overall, SICU HH compliance increased from 68% to 99% and thus decreased preventable HAIs by 75% over 6 months of the EBS implementation.

EB17: How the Creation of a Prone Team Improved Outcomes of Patients With COVID-19

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Purpose: Infection by the novel coronavirus that causes coronavirus disease 2019 (COVID-19) caused a global pandemic affecting millions and has resulted in more than 500 000 deaths. Many patients presented with severe respiratory symptoms or these symptoms developed subsequently. One strategy proven effective is early prone therapy. Therefore, a team was needed that would be responsible for proning many patients, using techniques that are evidence based and used in other health care institutions. **Summary:** Our first step was to review literature for recommendations on prone therapy. The foundation came from sources such as the American Association of Critical-Care Nurses (AACN), the American Nurses Association (ANA), and the National Pressure Injury Advisory Panel. Next, hospital administration, the human resources (HR) department, the wound team, nursing, and respiratory therapists collaborated to form the structure of staffing the team. The HR department was responsible for allocating resources from a pool of staff who were redeployed because of closures in clinics and surgical/procedural areas. A diverse group of staff, available 24/7, came from all aspects of care delivery to form the prone team members, who included physical therapists, exercise physiologists, medical assistants, surgical technicians, and nurses outside the intensive care unit (ICU). We chose this team to conserve ICU nurses who were needed to care for the high volume of patients with COVID-19 we were anticipated to receive. Training consisted of resources provided by the AACN and ANA along with a structure of superusers and peer-to-peer training. The wound team assisted with strategies to prevent pressure injuries. Responsibilities of the team focused on moving patients to prone and supine positions, and, when time allowed, reposition patients every 2 hours ("swimming"). **Evaluation/Outcome:** The prone team was functional from April to August 2020. Of 101 patients were who were placed in the prone position, 83 were positive for COVID-19; the remaining patients were ruled out for COVID-19 but met criteria for prone therapy. Patients requiring the therapy daily ranged from 1 to 21. Eighty patients were intubated; 6 patients required reintubation after a successful initial extubation. Fifteen patients required a tracheostomy. The average number of ventilator days was 16.6 (minimum, 1.1; maximum, 53.1). The mortality rate of this population was 67%. No workplace injuries were reported. The team's success was apparent, and efforts are underway to construct a team that will be responsible for prone therapy and other movement strategies in the future.

EB18: Impacting Emergency Department Capacity Through Expedited Critical Care Transfers

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Purpose: The purpose of this project was to reduce transfer times between the emergency department (ED) and the critical care setting by standardizing outreach by the inpatient nurse to the ED nurse within 30 minutes of bed assignment. Emergency department overcrowding affects quality of care provided to patients, with results such as increased wait times, increased length of stay, and delays in transfer to the inpatient setting. **Summary**: The Massachusetts General Hospital ED annual report from February 2017 showed the medical intensive care unit (ICU) had a total of 546 ICU boarders with a mean ED length of stay of 7.79 hours. Preliminary data collected between April and May 2017 revealed the median time between bed availability to registered nurse (RN) handoff was 44 minutes and the median time between RN handoff and patient arrival to the unit was 57 minutes. Beginning in June 2017, the critical care nurse calls the ED nurse within 30 minutes of a patient obtaining a medical ICU bed assignment. If the medical ICU RN is unable to communicate with the ED nurse, the medical ICU nurse notifies the ICU resource RN. This RN sends a text message via the Voalte app to the acute ED resource nurse to let them know the ICU bed is ready for RN pass-off and to encourage physician pass-off. **Evaluation/Outcome**: From October 2017 to September 2018, the median time between bed availability to RN handoff decreased to 27.12 minutes and the median time between RN handoff and patient arrival time in the inpatient unit decreased to 40.87 minutes. As of September 2018, the median time between RN handoff and patient arrival in the inpatient unit was almost halved, to 22 minutes. By standardizing the approach to receiving RN handoff from ED nurses, we were able to decrease the wait time to inpatient acute medical care by 30 minutes. Patients' access to prompt ICU-level care increased. This model may be used to expedite transfers to other inpatient settings.

EB19: Implementation of Nurse-Led Multidisciplinary Rounds in the Pediatric ICU

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Purpose: The structure of daily patient rounds at our freestanding children's hospital unintentionally inhibited active participation by all team members. The goals of our process improvement project were to redesign daily multidisciplinary rounds to ensure that nurses are an integral part of rounding, to develop an evidence-based rounding tool, and to positively influence patient safety and family satisfaction relating to knowledge of and adherence to the plan of care. Summary: Increasing nurse participation during multidisciplinary rounds leads to more effective interdisciplinary communication and agreement on the plan of care, which improve patient safety and outcomes. The cardiovascular and pediatric intensive care units (ICUs) aimed to enhance nurse presence, participation, and input during rounds through an evidence-based redesign of daily rounds. The project began in July 2018 when the ICU Clinical Practice Councils (CPCs) collaborated to develop a new structure and create a rounding tool to facilitate nurse presentation of key information. Presurvey results were reviewed to guide practice changes and tool design. In October 2018, provider vetting and education were done, and, in December 2018, the project went live. Postimplementation surveys were distributed at 6 and 12 months. Additional changes jointly agreed upon by the CPCs and the physician team included holding the team accountable to begin rounds with nurse presence and sequential revisions of the rounding tool. **Evaluation/Outcome**: Survey data of ICU nurses revealed the following statistically significant ($P < .05$), sustained changes. The percentages of respondents who answered, on a Likert scale, that they agree/strongly agree with the following statements are listed in parentheses in order of before implementation, 6 months after implementation, and 1 year after implementation, respectively: "Participation in rounds allows me to raise concerns" (35%, 73%, 70%); "I am always present during the entire duration of rounds" (72%, 100%, 100%); "Families want to hear my input during rounds" (63%, 80%, 87%); and "Rounding on 1 patient takes too much time" (33%, 24%, 11%). The success of this evidence-based solution led to the implementation of a similar rounding structure in other units throughout the hospital.

EB20: Implementation of Postextubation Dysphagia Screening Tool in the ICU

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Purpose: The purpose of this quality improvement project was to increase the identification of patients with postextubation dysphagia (PED) after endotracheal intubation (ETI) in the intensive care unit (ICU), using a validated, evidence-based swallow screening tool. **Summary**:

Postextubation dysphagia affects 20% of patients after prolonged ETI. The early identification and intervention of PED can decrease problems related to aspiration due to dysphagia. The need to standardize the PED screening (PEDS) was identified. A pre-implementation retrospective chart review of the postextubated patient was completed. The PEDS tool, a validated and tested screening tool specific to patients after extubation, was chosen and implemented in the ICU. The nurse's electronic health documentation was modified to reflect the screening. The needs assessment findings suggested the implementation of the PEDS tool will improve the identification of PED. The practice improvement project was conducted in a 25-bed ICU at Trinitas Regional Medical Center. The screening protocol calls for all patients to be screened for dysphagia 2 hours after extubation. The project implementation phase was conducted for 8 weeks. **Evaluation/Outcome**: Thirty-seven patients (88.1%) were screened using the PEDS tool, and the project demonstrated 70.3% of these patients did not pass the PEDS assessment or screened positive for dysphagia. The implementation of the PEDS tool standardized screening of postextubated patients and increased the identification of high-risk patients. Postextubation dysphagia could result in aspiration, negatively affecting patient care outcomes. Prevention of aspiration is a patient safety concern. The PED screening of the postextubated patients will be critical in identifying patients with dysphagia, reducing the risks of starting unsafe oral feeding, and preventing aspiration.

EB21: Implementing a Critical Care Outreach Newsletter to Improve Rapid Response Utilization

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Purpose: The critical care outreach team (CCOT) consists of critical care nurses committed to improving early recognition of patient deterioration and eliminating cardiac arrest outside of the intensive care unit. The CCOT engages in proactive rounding, collaborating with nurses to support patients by providing expert consultation. A monthly CCOT newsletter was initiated to increase rapid response system (RRS) use, deliver education, and improve acute care nurse familiarity with the CCOT. **Summary**: The idea for the CCOT newsletter grew from the need to improve communication about patient deterioration and escalation of care. Transparent, respectful communication is necessary to maintain a culture of safety that promotes early recognition and management of patient deterioration. In addition, nurses are more likely to activate the RRS when they do not fear repercussion or feel the need to justify the activation. *The HeartBeat* was first published in January 2019 and disseminated via email to all nurses throughout the organization. The newsletter is divided into 4 sections: acute care nurse recognition, an educational feature, a teammate profile, and a quiz based on a recent clinical scenario coupled with an explanation and rationale. Each newsletter reinforces RRS activation criteria. All sections of the publication promote awareness, education, and support. **Evaluation/Outcome**: There was a significant increase in RRS use before (mean, 18.08 [SD, 5.93]) and after (mean, 35.83 [SD, 7.76]) newsletter implementation ($t_{22} = 6.3$, $P < .001$). Acute care nursing staff have reported enthusiastic appreciation for content and that they use newsletter information in real time at the bedside. *The HeartBeat* has served as a vehicle for education and improved collegial relationships. This newsletter has demonstrated potential to improve patient outcomes through early detection of patient deterioration and increased use of the RRS. Implementation of this simple evidence-based initiative can be generalized across nursing specialties.

EB22: Implementing a Nurse-Driven Protocol to Increase Compliance With a Sepsis Bundle

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Purpose: Sepsis is a medical emergency and is the leading cause of death in hospitals. The purpose of this intervention was to improve initiation of a sepsis bundle by implementing a nurse-driven protocol to obtain blood samples for culturing and determining lactate levels when a sepsis alert fired within the electronic health record. Early detection and timely interventions are imperative to improve sepsis outcomes for patients. **Summary**: Greater compliance with sepsis bundles is associated with a 25% reduction in the risk of death. A nurse-driven protocol was created to improve compliance with the sepsis bundle. The interdisciplinary sepsis committee reviewed published process improvement initiatives and contacted high-performing organizations to identify their sepsis reduction strategies. A synthesis of

this evidence was used as the foundation to create the nurse-driven protocol that initiated the sepsis bundle. The electronic health record was modified to capture data that would trigger a Sepsis Alert, a pop-up window. When a nurse received a Sepsis Alert, interventions were initiated within a 1-hour window. Interventions included drawing blood samples for culturing and to measure lactate levels before administering antibiotics; assessing the patient's level of consciousness, using the Glascow Coma Scale (GCS); and immediately notifying the provider. Exclusion criteria were added to the protocol for patients who trigger an alert and have comfort care orders. **Evaluation/Outcome**: Monthly data were collected from the electronic health record to examine trends. Compliance with obtaining blood samples and assessing the patient's level of consciousness via the GCS improved drastically. Compliance rates increased from preimplentation (25%) to postimplementation (75%) of the nurse-driven protocol between January 2018 and June 2018. Compliance has since been sustained at a rate greater than 80%. Next steps include improving compliance with 2 additional interventions of the sepsis bundle: timely administration of antibiotics and intravenous fluids. In conclusion, implementing a nurse-driven protocol to initiate the sepsis bundle markedly improved compliance for the care of these at-risk patients.

EB23: Implementing the CAM-ICU to Recognize and Reduce ICU Delirium

Thomas Dechant, Lauren Smith, Jose Chavez; Cedars-Sinai Medical Center, Los Angeles, CA

Purpose: To re-educate nurses and improve their knowledge of delirium associated with a patient's stay in an intensive care unit (ICU) and the Confusion Assessment Method in the Intensive Care Unit (CAM-ICU) tool in the cardiac intensive care unit. Delirium occurs in 60% to 80% of ICU patients and is associated with 3 times greater mortality risk, long-term cognitive impairment, and lengthier hospital stays. However, use of the CAM-ICU as a daily assessment tool for early delirium detection has been shown to help reduce the effects of delirium. **Summary**: From July to November 2019, preimplementation data were collected by administering a questionnaire to assess nurses' baseline understanding of how comfortable they were using the CAM-ICU tool, evaluating a patient using the tool, and its daily use, along with the management, risk factors, and prevention of delirium. In November 2019, delirium champions provided 1:1 education with nurses. In November and December 2019, the champions collected the first set of postimplementation data by 1:1 testing of the nurses' knowledge using the same questionnaire. The second set was obtained in January and February 2020. During the first week of March 2020, a CAM-ICU badge buddy was provided to the nurses as a quick reference guide, because of a decrease in their knowledge base. The final set of data was collected in March and April 2020. **Evaluation/Outcome**: Survey results showed that 6% of registered nurses (RNs) felt comfortable using the CAM-ICU tool. After reeducation, comfortability rates were 18% in November 2019, 11% in January 2020, and 58% in March 2020 after providing the badge buddy. Preimplementation data revealed 91% of RNs believed they knew how to use the CAM-ICU tool, but testing at those time points indicated the percentage of nurses with actual knowledge of using the CAM-ICU tool was 46%, 83%, and 96%, respectively. Preimplementation data revealed 65% of RNs reported using the CAM-ICU tool daily, but actual daily use was 43%, 70%, and 81% at the 3 respective time points. Survey data indicated 44% of RNs thought they could manage delirium, but actual knowledge testing indicated the rates were 39%, 48%, and 77% at the respective time points. Survey data indicated 79% of RNs felt they were familiar with delirium risk factors, but actual knowledge testing indicated the rates were 71%, 96%, and 96% at the respective time points. Finally, 71% of RNs felt they knew how to prevent delirium, but actual knowledge testing indicated the rates were 64%, 70%, and 96% at the respective time points.

EB24: Improving Adoption of Evidence-Based Chlorhexidine Skin Preparation Before Cardiac Catheterization

Robyn Strong, Cassidy Johnson; Duke University Health System, Durham, NC

Purpose: An increasing trend of central catheter–associated bloodstream infections (CLABSIs) has been linked potentially to intra-aortic balloon pumps (IABPs) placed in the cardiac catheter laboratory. Although CLABSIs can be insertion related or occur after insertion, an opportunity exists to improve compliance with chlorhexidine (CHG) scrub times when preparing the access site. The purpose of this project was to educate staff and standardize access site preparation using CHG

skin antisepsis before all procedures. **Summary:** An interprofessional team was formed to review current evidence and baseline practice patterns in the cardiac catheter laboratory. Current CLABSI prevention highlights the importance of CHG skin antisepsis before skin puncture. Direct observational measures of baseline compliance rates for proper scrubbing technique (80%) and 2-minute scrub time (0%) indicated a significant practice gap related to knowledge and skills of evidence-based CHG skin antisepsis. The educational plan included small-group sessions and standardized hands-on simulation training on 4 parameters of proper CHG skin antisepsis: appropriate scrub motion and area, length of scrub, dry time before draping, and the use of a timer for all insertion-site preparations. Direct observational audits were then conducted over 5 months after the intervention to evaluate compliance with the 4 parameters. **Evaluation/Outcome:** A total of 200 audits took place over a 5-month intervention period. All data were reported as categorical values (yes or no) for each parameter. Postimplementation compliance rates for each parameter were as follows: 2-minute scrub time, 96%; 3-minute dry time, 99%; proper scrubbing technique, 100%; and universal timer usage, 93%. This protocol has been implemented into the daily workflow for cardiac catheterization procedures, thus improving patient safety and potentially lowering hospital costs.

EB25: Improving Daily Weight Compliance in the Hospital

Sheeba Regy, Neenu Alexander; University of Texas MD Anderson Cancer Center, Houston, TX

Purpose: The purpose of the daily-weight improvement project was to increase compliance with patients' daily weight measurement on a thoracic surgery unit. After a routine regulatory agency's site visit, the division of nursing was made aware of a compliance issue with following provider orders such as obtaining patients' weight daily. Nursing leaders began completing chart audits to determine the magnitude of the problem and work toward increasing compliance. **Summary:** The evidence-based solution for this problem was to implement visual cues to inform staff which patients have daily weight orders and ensure they are completed. Literature was searched on compliance with daily weight orders for hospitalized patients. Although there was not a large body of evidence on this topic, there was literature to support using visual cues to help with compliance. Visual cues trigger memory, which triggers behavior. The findings were discussed with the unit clinical nurse leader and a decision was made to develop and implement door magnets. We created a door magnet and developed staff education in the form of an in-service training to prepare staff for the new signage. **Evaluation/Outcome:** The inpatient unit had an average compliance of 33% preintervention (September 2019 through January 2020). In February 2020, we provided education to unit staff and implemented the door magnet; compliance during February averaged 67%. From March 2020 through August 2020, the postintervention period, we achieved an average of 75% compliance with daily weight documentation. Our intervention resulted in a significant and sustained improvement in daily weight compliance; mean compliance increased from 33% to 75%—a 127% increase.

EB26: Interunit Transfer Process Using Bedside Shift Report to Enhance Throughput

Robyn Dougherty; Christiana Care Health System, Newark, DE

Purpose: Bedside shift report (BSSR) requires the exchange of information to prevent adverse events or errors and can foster a positive relationship between patient and registered nurse (RN). From a surgical intermediate care unit to surgical step-down units, BSSR had not been used. The goals for this project are that, between these 2 units, BSSR will be completed 100% of the time and, secondarily, the average transfer time (ATT) will be decreased by 20%, resulting in enhanced throughput. **Summary:** The BSSR is current best practice. In a study, BSSR resulted in increased patient safety and increased patient satisfaction scores from 87.7% to 91.6%. Throughput and decreasing interunit transfer times are a focus for improvement within hospitals and was the measurable indicator for this project. Before initiation, from June through October 2018, the ATT was 120.73 minutes. A new interunit transfer process was developed that used BSSR between units. Upon notification of a patient receiving a bed posting on another unit, an escort is immediately dispatched. Before transfer, 2 RNs complete a head-to-toe patient skin assessment. The sending RN accompanies the patient on transport and engages in BSSR with the receiving RN. The algorithm developed to guide this process was thoroughly reviewed by the RNs

whose units were included; the sending unit's RNs were educated via staff meetings and the receiving unit's RNs were educated by their unit nurse educators. The significance of this new process was the implementation of BSSR for all transferred patients. **Evaluation/Outcome**: Five months after implementation of the new process and data collection, BSSR was completed for 100% of transfers. Secondarily, the ATT decreased from 120.73 minutes to 90.08 minutes. This is a 25.39% decrease in ATT, which met and surpassed the goal of decreasing ATTs by 20%. Barriers to the process included the availability of RNs (eg, nurses may be on break, in critical situations with other patients), patients who received postings to beds not yet ready, and the availability of our patient escort team. This process was successful by implementing best practice BSSR, resulting in enhanced throughput, patient and family participation, and better time management for nurses.

EB27: Meditation and Mindfulness in a Transplant/Surgical/Trauma Step Down Unit

Olena Svetlov; Cedars Sinai Medical Center, Los Angeles, CA

Purpose: High stress levels and work-related burnout are prevalent among acute care nurses. In 2016 and 2017, Employee Engagement Score (EES) data on organizational help for assisting staff with stress and burnout were 75.8% and 74.1%, respectively, for a 62-bed post-surgical/trauma/transplant progressive care unit in our facility. These findings indicated an urgent need for an intervention. The purpose of this project was to implement a meditation and mindfulness program to see if stress and burnout could be improved by 10%. **Summary**: Leadership meetings were held to evaluate the trends of the EESs. Together, the Unit Practice Council and leadership decided to establish a meditation and mindfulness program through which a dedicated environment would be available for staff during their shift for meditation and mindfulness practices. Using information gathered during an evidence-based literature review, the committee prepared a "How to Meditate Guide." Small training sessions were offered to champions and staff. An easily accessible conference room was set up as a meditation room where staff could perform evidence-based mindfulness exercises; attend informative sessions; and have access to soothing music, indirect aromatherapy, lights, newsletters, a water fountain, and a variety of teas. A sign-in sheet and an informative binder with mindfulness images were placed for everyone to use. Staff were allowed 15 minutes each shift in the meditation room, with patient coverage provided by leaders of the unit. A monthly educational newsletter was sent out to all staff and posted in a room. A follow-up survey was sent to staff to assess the effectiveness of the meditation room. **Evaluation/Outcome**: The EES data on how often unit leaders assisted with stress and burnout indicated a 76.4% rate in 2018 and 97% in 2019. The implementation of a meditation and mindfulness program helped decrease stress and burnout of nursing staff, as evidenced by EES results. In 2018, when the project was about to start, the results indicated a slight 2.3% increase in the EES. After the project became a part of a unit life, the EES results indicated a greater than 20% improvement in nursing staff stress and burnout after implementing the meditation and mindfulness program.

EB28: Mobility Pause for a Cause: Fall Prevention

Jessica Thomas, Allie Purvine; Salem Hospital, Salem, OR

Purpose: The purpose of this project was to improve harmful fall rates. The Falls Committee (FC) began a harmful falls initiative in the summer of 2019, because of an observed increase in harmful fall rates at the organization. Through the Lean Four-Step Problem-Solving process, the FC identified a likely contributing factor to the increase in harmful falls: unrecognized changes in patients' physiological status. **Summary**: The FC chair learned about a mobility tool at a local nursing conference. The FC elected to adopt a component of the model to complement current practices. The team named this new innovative tool the Mobility Pause. Research demonstrates that dizziness, confusion, and weakness can precede a fall. During the problem-solving process, the FC noticed that many of the falls were witnessed and/or assisted falls. The Mobility Pause was a nice fit for the organization because it offered an evidence-based approach to fall prevention by helping staff recognize a change in the ambulatory patient's physiological status before the out-of-bed activity. The FC implemented the Mobility Pause on 2 test-of-change (TOC) units in August 2019. Falls champions on the TOC units introduced the Mobility Pause and provided education via shift huddles and emails. Leaders used self-report sheets to audit process compliance. Staff reported when the mobility plan was

changed because of the Mobility Pause. **Evaluation/Outcome**: During the TOC, the project leaders closely monitored harmful falls to determine the effectiveness of the Mobility Pause. The general medical unit maintained zero harmful falls from September through November 2019. During the TOC, staff reported a change to the mobility plan 10% to 20% of the time after performing the Mobility Pause. Both TOC units maintained zero harmful assisted falls through December 2019. The Mobility Pause gives a name to an important safety process; it also provides an opportunity for excellent role modeling because it teaches the patient a way to self-assess when at home. After 2 successful TOCs, the FC shared the innovative Mobility Pause with the entire organization as a fall prevention tactic.

EB29: Putting Evidence to the Test for COVID-19: Rapid Adoption of Best Practice Guidelines for COVID-19

Kelly Brown, Nicole Matias-Bado, Juliann Onorato, Bradi Granger, Joshua Gill; Duke Health, Durham, NC

Purpose: Emergence of coronavirus disease 2019 (COVID-19) caused nurses around the world to quickly acquire skills for identification, diagnosis, and treatment of infected patients. Evidence for best practice, however, was unfamiliar to our tertiary cardiac intensive care unit (CICU). The purpose of this study was to identify baseline nursing knowledge about COVID-19, assessing staff confidence in identifying patients' signs and symptoms, both typical and cardiac, and the appropriate testing for a person under investigation (PUI). **Summary**: At the outset of the pandemic, nursing staff expressed fear of not knowing enough about the virus and its sequelae to safely care for patients designated as PUI. The novel nature of the disease made it important to teach staff to identify the signs, symptoms, and treatment of COVID-19. A transdisciplinary team rapidly developed and deployed an evidence-based educational series, including didactic and practical information, to improve staff knowledge and reduce anxiety and fear during patient care activities. A baseline survey assessed (1) the primary source of educational information for COVID-19, (2) confidence in recognizing typical signs and symptoms of COVID-19, (3) confidence in recognizing cardiac signs and symptoms of COVID-19, (4) confidence in knowing the diagnostics to be performed for a PUI, and (5) confidence in recognizing clinically significant diagnostic findings in patients who test positive for COVID-19. Sessions were delivered in a scheduled monthly staff meeting and reinforced over time through team huddles. The intervention included validated research updates, standards of care for PUIs, and national and institutional policies for PUIs. A postintervention survey was conducted at 18 weeks. **Evaluation/Outcome**: We evaluated baseline knowledge and confidence among staff nurses, the majority of whom were female, aged 25 to 35 years, and with less than 3 years' experience in the CICU (n = 38). The postsurvey responses (n = 31 respondents) reflected a significant improvement in knowledge and confidence ($P = .05$) after the evidence-based intervention. Staff who reported obtaining a majority of information from COVID-19–related huddles were more likely to report higher confidence. Though most staff had reported having some evidence-based information about the virus and disease at the outset, the intervention lessened their anxiety and improved confidence in patient care delivery. Rapid adoption of evidence-based practices may support a healthy workplace.

EB30: Rapid Training Model for Cortrak Feeding Tube Insertion During the COVID-19 Pandemic

Heather Etzl, Jacqueline Crawford, Michele Decastro; Thomas Jefferson University, Philadelphia PA,

Purpose: During the coronavirus disease 2019 (COVID-19) pandemic at a large academic medical center, an increased number of patients required small-bore feeding tube access because of complications from the disease. There was a limited number of advanced practice providers (APPs) competent in inserting small-bore feeding tubes using the Cortrak 2 Enteral Access System (Avanos). The nutrition support clinical nurse specialists (CNSs) collaborated with the hospital medicine APP team and developed a training model for using the Cortrak system. **Summary**: Cortrak is an electromagnetic device designed to prevent misplacement of small-bore feeding tubes into the lung. To correctly interpret the insertion with the device, evidence supports supervised insertion of a minimum of 3 to 10 times with a short period between insertions. The training model consisted of 5 supervised insertions by the nutrition support CNS to achieve competency. This training model was designed to achieve quick succession of feeding tube placement in a short time by designating 1 to 2 APPs each week to place all small-bore feeding tubes using the Cortrak device

throughout the hospital. **Evaluation/Outcome:** During the first 3 weeks of using the training model, 3 APPs achieved competency. After 4 months, all 8 APPs achieved competency and, using the device, could independently insert small-bore feeding tubes. The average time for each APP to achieve competency was 2 weeks. By increasing the number of APPs competent with the device, the time to tube insertion and feed initiation was decreased.

EB31: Reducing Contaminated Blood Cultures in the CICU

Brandon Thomas, Lauren Smith, Alice Chan, Jose Chavez; Cedars-Sinai Medical Center, Los Angeles, CA

Purpose: From January 1, 2019, to January 1, 2020, the cardiac intensive care unit (CICU) had 18 contaminated blood cultures. Nurse reeducation on the proper blood sample culture collection technique and process will decrease the number of contaminated blood cultures obtained in the CICU. **Summary:** In January 2020, leadership, nurses, physicians, educators, and epidemiologists met to discuss the increasing rate of contaminated blood cultures in the CICU and the impact it has had on patient care and outcomes. From February 1 to February 14, 2020, preintervention data were collected by administering a pretest tool to assess nurses' knowledge on the preparation, process, and technique of collecting blood sample cultures. From February 15 to February 28, 2020, designated blood culture champions used a visual aid to provide 1:1 education to staff nurses on the proper blood sample culture preparation, collection, process, and technique. Postintervention data were collected from July 18 to July 31, 2020, using the same pretest tool to determine if the nurses' knowledge had improved. Nurse reeducation occurred a second time in August, and the second set of postintervention data was collected from August 1 to August 14, 2020. A final set of postintervention data was collected from August 15 to August 28, 2020. **Evaluation/Outcome:** Preintervention data collection revealed that 19% of nurses knew how to prepare blood sample cultures correctly, 22% knew the correct collection process, and 38% knew the proper technique. After educating the nurses on the appropriate blood sample culture collection process, nurse knowledge in the preparation of blood cultures increased to 43%, 60%, and 79%, according to the postintervention data collected in July, early August, and late August 2020, respectively. Knowledge of the collection process increased to 61%, 73%, and 85% at the respective data collection times, and knowledge of proper technique increased to 46%, 50%, and 79%, respectively. After educating nurses on the proper blood sample preparation, collection process, and techniques, the CICU has had zero contaminated cultures.

EB32: Reducing Health Care–Associated Infections in the Cardiac Surgery ICU

Emanuelle Lima, Alexander Hernandez; University of Maryland Medical Center, Baltimore, MD

Purpose: The cardiac surgery intensive care unit (CSICU) had 1 of the highest health care–associated infection (HAI) rates at large academic hospital. Health care–associated infections contribute to increased mortality rates, increased hospital length of stay, billions of dollars lost in medical expenses, and decreased quality-based reimbursement for facilities. The goal was to reduce HAIs by instituting unit-based infection prevention champions (IPCs) and using evidence-based solutions to engage stakeholders in safety improvement. **Summary:** In October 2017, the CSICU instituted a dedicated, full-time IPC. The IPC was removed from nursing staff numbers and focused on HAI prevention. The IPC was responsible for daily monitoring of central catheters, urinary catheter maintenance, advocating for the removal of unnecessary devices, and twice-weekly site audits. The IPC was also tasked to educate and empower nursing staff to advocate for patient safety and speak up when there are breaks in protocols. The CSICU also followed the Agency for Healthcare Research and Quality (AHRQ) best practices for providing safe care and created a comprehensive unit-based safety program (CUSP) team. The CUSP team later evolved to become the Do No Harm Committee (DNHC), which is led by the IPC and consists of multidisciplinary team members. The DNHC integrates a broad range of quality improvement models such as the AHRQ's TeamSTEPPS, root cause analysis, and plan-do-study-act, with the goal of improving patient safety and reducing HAIs, falls, and pressure injuries. **Evaluation/Outcome:** During the first year of implementing a dedicated IPC in the CSICU, the total number of HAIs decreased by 60% from fiscal year 2018 to 2019 (20 and 8 HAIs, respectively). Adding collaboration with the DNHC, HAIs continued to decrease by 63% in 2020 (3 HAIs). For specific HAIs, the CSICU achieved 2 years of no catheter-associated urinary tract infections

(May 2018 to May 2020), 2 years of no methicillin-resistant *Staphylococcus aureus* infections (June 2018 through June 2020), and 1 year of no central catheter–associated blood stream infections (August 2019 through August 2020). The team continuously stresses that patient harm is not an acceptable cost of doing business in health care.

EB33: Reducing the CAM-Fusion: Improving Delirium Assessment in the CTICU

Rachel Civale, Linnea Mangodt, Myra Ellis, Allen Cadavero, Sarah Mooradian, Kristen Cossaart, Emma Bartholomew; Duke Heart Center, Durham, NC

Purpose: Delirium affects at least one-third of patients in the intensive care unit (ICU) and is associated with high morbidity and mortality rates. Nationally, delirium is not assessed appropriately, because of lack of awareness, knowledge of appropriate assessment tools, and resources that integrate the tools into every day workflow. We hypothesized that education on the use of the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) would improve the ability to detect delirium in our cardiothoracic ICU (CTICU). **Summary:** Using the evidence from the guideline, the Research Committee began by performing a chart audit on 100 randomly chosen patients to determine documentation habits for assessing delirium. We identified a lack of knowledge about delirium, poor documentation, and lack of clarity as to whether the steps for assessment were followed. We then reviewed the literature on validated delirium assessment tools to identify the most appropriate for use in the CTICU. The CAM-ICU was the most efficient, comprehensive, and accurate tool to assess delirium in an ICU patient. We implemented an educational initiative to improve delirium awareness, knowledge, and the ability to use the CAM-ICU. The research team did individual CAM-ICU competency assessments and education was added to staff meetings and safety huddles. In addition, enhancements were made to the electronic health record (EHR) to facilitate accurate assessment and documentation. The changes in the EHR included scoring for each component, thereby requiring the user to assess each component completely. **Evaluation/Outcome:** The outcome of the project was improved accuracy and frequency in documentation of the CAM-ICU assessment. Before beginning the project, our CTICU had approximately 41% of patients with a completed CAM-ICU assessment, most of whom were incorrectly assessed because of staff's lack of knowledge on delirium and use of the tool. After the education initiative, approximately 51% of patients had a completed CAM-ICU assessment during a given shift. Changes in the EHR contributed to improved compliance and accuracy with documentation. In addition, nurses initiated a delirium assessment presentation at the beginning of interdisciplinary rounds using the EHR CAM-ICU assessment with accurate and reliable data.

EB34: Reduction of Cardiac Arrest in a Pediatric CICU Using Rolling Refresher In Situ Simulation

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Purpose: A pediatric patient who sustains a cardiac arrest while hospitalized has less than half the chance of survival than if they do not have a cardiac arrest. In 2019, the cardiac arrest rate in the cardiac intensive care unit (CICU) at Children's Hospital Colorado was 5.5/1000 patient days—1 of the highest rates in the country. This situation led to the development of Rolling Refreshers (RRs), an in situ simulation strategy to provide CICU nurses the opportunity to practice low-frequency, high-risk code skills to decrease the cardiac arrest rate in the CICU. **Summary:** The curriculum for RRs was based on previous CICU code events and resuscitation data. A pilot phase of RRs was implemented with 3 code skills: chest compressions, bag valve mask ventilation, and low-dose epinephrine. A plan-do-study-act cycle was performed at 3 months. On the basis of staff feedback, the program transitioned into a roulette form, where participants were blinded to the skill they would have to perform, with the addition of 5 new code skills: defibrillation, cardioversion, massive transfusion protocol, intraosseous access, and volume resuscitation. The revised format allowed for critical decision-making because participants had to recognize the etiology of decompensation and then select and perform the correct intervention. If a team member was unsuccessful in performing a skill, the facilitator provided coaching and allowed the participant to repeat the simulation. During the debriefing, the simulation facilitator reviewed teaching points for the selected skill. **Evaluation/Outcome:** During the pilot phase of RRs, 89 discrete simulation events were conducted in the CICU. Rolling Refreshers increased registered nurses' perceived skill competence and observed skill competence. In addition, 48 staff members asked for more training or support from the facilitator after completion of the scenario. Implementation

of RRs has contributed to a decrease in the incidence of cardiac arrest in the CICU, from 5.55/1000 patient days in 2019 to 4.65/1000 patient days at the completion of the pilot study. However, a known limitation of this evidence-based practice was the inability to isolate which intervention of the CARE (Cardiac Arrest Reduction and Excellence Team) program was most effective in reducing cardiac arrest.

EB35: Standardized Approach to Skin Assessment Leads to Zero Harm

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Purpose: Nasogastric tubes (NGTs) and Dobhoff tubes were the cause of 3 near-miss medical device–related pressure injuries (MDRPIs) in the transitional surgical unit (TSU) between November 2019 and January 2020. The TSU leadership team, with the aid of the Optimal Outcomes Team, used these near-miss opportunities to change nursing practice to avoid further patient harm. **Summary:** In January 2020, 100% of the TSU nurses were provided 1:1 education on the proper securement of NGTs and Dobhoff tubes. Each nurse was then required to demonstrate their understanding of the education by securing a device on a mannequin. In addition to the reeducation of the entire staff, we also implemented a 2-nurse skin check at all nurse handoffs. With each bedside shift report, 2 nurses removed the securement device; inspected the skin around the nare, using a flashlight; resecured the tube; and validated the tube was floating. This practice was then documented by the oncoming nurse. **Evaluation/Outcome:** Despite unchanged use rates of NGTs, we have maintained a zero patient-harm rate and MDRPI since the implementation of the new process.

EB36: Supporting a Healthy Work Environment in the PICU

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Purpose: Pediatric intensive care unit (PICU) nurses are susceptible to increased stress, decreased morale, and higher job turnover. The American Association of Critical-Care Nurses (AACN) identified 6 standards shown to create a healthy work environment (HWE): skilled communication, true collaboration, effective decision-making, appropriate staffing, meaningful recognition, and authentic leadership. The goal of this project was to support the presence of an HWE and evaluate the impact on a single PICU environment. **Summary:** After identifying a need for an HWE in this large, 36-bed PICU, a task force was formed to perform a literature review using the following PICO (patient, intervention, comparison, outcome)-based question: Among PICU nurses, how does the use of educational activities to promote awareness of HWE resources impact scores on AACN's HWE Assessment Tool? The AACN baseline survey was given to the PICU nursing staff to gain insight on the current perception held on each of the 6 standards. A unit-specific HWE bundle was created to identify ways staff could apply each standard. Various education strategies were provided to staff on each area of the bundle. The survey was repeated at 6 months and 1 year after intervention to evaluate nurse perception of an HWE in the unit. Since its creation, the AACN HWE initiative has been shown to directly benefit job satisfaction, decrease turnover, and improve patient care outcomes. This evidence-based project demonstrated significant benefit to this particular PICU's nursing staff, as well. **Evaluation/Outcome:** With sample sizes ranging from 13 to 29 for baseline, 6 month, and 1 year postintervention surveys, overall nurse perception of the presence of an HWE in the PICU increased significantly at the 6-month postintervention time point from 46% of nurses agreeing or strongly agreeing that an HWE is present to 87% and balanced at 74% at the 1-year timepoint. Further analysis focusing on each of the 6 standards followed a similar pattern, which demonstrates the sustained effects of this project's implementation, even during the current pandemic. The data show that HWE education efforts in the PICU were effective and that an HWE is present in the unit.

EB37: The Pressure's On: Reducing Pressure Injuries on Prone Patients During a Pandemic

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Purpose: Within the first month of caring for critically ill patients with acute respiratory distress syndrome (ARDS) resulting from coronavirus disease 2019 (COVID-19), it was evident to the critical care team that anterior surface pressure injuries (PIs) were developing at an alarming rate in patients with COVID-19 who were receiving mechanical ventilatory support and were proned. The purpose of this quality improvement project was to use

plan-do-study-act methodology to rapidly implement interventions with the goal of reducing anterior-surface PIs on patients with COVID-19 who were receiving mechanical ventilatory support. **Summary:** The high rate of anterior-surface PIs prompted an interdisciplinary team to review existing literature, determine the contributing factors, and develop solutions. The team identified 2 actionable factors. First, these patients were spending more hours in the prone position as compared with patients with traditional ARDS. Second, staff shortages and competency gaps contributed to proned patients being repositioned less often than recommended. In response, the team implemented interventions focused on off-loading anterior-surface pressure areas. Those interventions included using foam positioners underneath the face, chest, knees, and feet; using tape to secure endotracheal tubes; and education for registered nurses on recommendations for repositioning while in the prone position. **Evaluation/Outcome:** In the preintervention period, anterior-surface PIs developed in 62.7% of patients with COVID-19 who were receiving mechanical ventilatory support and were proned. In the postintervention period, anterior-surface PIs developed in 61.1% of patients. When comparing outcomes, there was not a significant decrease in PI rates after interventions were implemented. It should be noted that the preintervention sample (n = 51) was much larger than the postintervention sample size (n = 18). The team reviewed these outcomes and determined that, at this time, the interventions will continue to be used. The team also identified that a larger data set with additional variables should be studied to gain more insight on the issue.

EB38: The Road to Resilience: Introducing Work Life to Home Life

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Purpose: Create an open house for families of pediatric intensive care unit (PICU) staff to experience challenges related to the complex care of pediatric patients. The weight from an emotionally, physically, and mentally draining job does not evaporate as a health care worker leaves the work environment. Non–health care workers struggle to understand what a stressful day entails, which prevents family members from being able to appropriately support health care workers at home. Bridging this gap may help to alleviate some stress. **Summary:** For staff in the PICU at a quaternary-care, pediatric, academic medical facility, the stress and weight felt while caring for critically ill children does not lift as soon as they drive home. The struggle to verbalize the emotional, physical, and mental exhaustion they feel can be a burden. Attempting to increase resiliency and retention for staff, a committee presented a creative intervention to PICU leadership: Hold a PICU open house event to show staff families the everyday work included in complex patient care. Creating this bridge between staff's 2 lives allows staff to show families what they occasionally cannot explain. Multiple approvals from infection control, risk management/legal, and employee health departments were obtained to plan an event that would accommodate as many staff as possible. The day of the event included tours on the unit to interact with a complex patient simulation in an empty patient room. A debriefing held in a separate space off the unit included hands-on activities and videos of past patient experiences. There were also accommodations for small children younger than 14 years who were not allowed to visit the unit due to infection control policy. **Evaluation/Outcome:** Families responded that the open house event opened their eyes to the stress their family members were under while at work. This opportunity has enabled non–health care workers to understand what a stressful day in the PICU entails and possibly adjust how to appropriately support health care workers at home. With an abundance of positive feedback from both staff and families, plans to reach more staff with more scheduled events were ongoing before the coronavirus disease 2019 pandemic.

EB39: Transitioning and Advancement in Pediatric Nursing: The Pediatric Nurse Intensives Program

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Purpose: Retaining nurses who are shifting from adult care to a pediatric care setting or advancing to a specialty practice is challenging. Training that includes the issues around shifting from patient-centered adult care to family-centered pediatric care and advanced clinical competencies is vital, and so is the attention to stressors of working in the pediatric intensive care environment. The educator must consider how to tailor education to the unique needs of children, especially critically ill children. **Summary:** The Pediatric Nurse Intensives (PNI) program is a competency-driven, learner-centered initiative for nurses

without pediatric or intensive care unit (ICU) experience that aligns with The Institute of Medicine's *The Future of Nursing* report that recommended a transition program for nurses moving to increased acuity or different practice. Managers recognized adult-care nurses struggled with what pediatric-care nurses took for granted, and preceptors assumed these nurses knew the foundations of pediatric care, such as weight-based and developmental care. The course design provides clinical knowledge and skills specific to the medical, psychosocial, safety, and communication needs of children, and content encompasses assessment, disease processes, medication administration, and validation of procedural competence. Implementation embraced a human-centered design with a blended learning curriculum and clinical simulation focused on evidence-based care. **Evaluation/Outcome**: After 1 year, retention was 82%, because anxiety was eased, small class sizes were valuable, and simulation settings were safe for nurses to question and learn. Participants validated the PNI program and the ICU manager reported a reduction in time to competence with advanced skills. Leadership advocacy and feedback has led to the growth of the program by including nontraditional ICU registered nurses and registered respiratory therapists, and adding content that was valuable when moving into these environments. Current dialog involves a children's emergency department PNI and a critical care series to continue the education for the novice and advanced beginner for pediatric ICU nurses, offered twice per year, complementing the ICU PNI.

EB40: Using Simulation as an Effective Tool to Teach Difficult Conversations in Acute Care

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Purpose: Many traditional acute care nurse practitioner (ACNP) programs do not provide students adequate instruction to facilitate emotionally charged conversations in clinical practice. Interviews conducted with ACNPs revealed that 94.4% felt unprepared to have difficult conversations upon graduation. Simulated learning is commonly used in nursing education. This project was designed to evaluate the effectiveness of using a simulation-based approach to teach difficult conversations. **Summary**: This project was conducted with students in an ACNP program in Pennsylvania. Standardized patients were used in conjunction with a structured communication curriculum to educate students on leading and facilitating difficult conversations. Data were collected using the Provider-Patient Relationship Questionnaire (PPRQ), a self-evaluation tool designed to measure providers' relational competencies with patients. The students engaged in a simulation experience with standardized patient actors focused on a difficult communication that they may encounter in clinical practice. The PPRQ was administered immediately after this encounter. The students attended a formal workshop where focused communication skills were taught. Thereafter, the students returned to the simulation laboratory for a second encounter focused on difficult conversations. Students were given PPRQ questions for a second time after the second encounter. **Evaluation/Outcome**: Results of this project demonstrated that simulation is an effective method to teach difficult communication skills to ACNP students in acute care. Using the Wilcoxon signed-rank test, a significant median difference increase of 14.0 was identified in the PPRQ score from before to after the intervention (60.0 vs 74.0, respectively; $P < .001$). Teaching ACNP students to have stronger communication skills will have many potential benefits, including leading to more effective communication between patients and providers. More effective communication leads to a higher level of patient satisfaction and better patient-provider relationships.

EB41: You're All In! But Can You Escape? Using an Escape Room to Teach Timely Sepsis Management

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Purpose: The objective of this activity was to create and evaluate a simulation experience using an escape room to help learners recognize sepsis and implement timely interventions. An escape room was designed to provide critical care nurse residents an opportunity to recognize early signs and symptoms of sepsis and deliver evidence-based interventions promptly. Serious gaming, including educational escape rooms, engages learners and enhances teamwork and critical thinking. **Summary**: This experience was provided during a critical care nurse residency program. The escape room incorporated 9 tasks related to sepsis that the nurse residents had to complete sequentially to escape. Before participating in the escape room, the nurse residents were required to complete the sepsis modules within the American Association of Critical-Care Nurse's Essentials of Critical Care Orientation course. Educators set up the escape room to mimic

a room in a critical care unit. A standardized patient was used to take on the characteristics of a septic patient. Interns were divided into groups of 3 to 4 learners. Before starting, residents received instructions about the simulation environment and were given rules that included the use of 1 hint card to ask a question during the scenario. The team had 45 minutes to complete 9 activities and escape. Time started after the residents received a brief report. The team with the fastest time won the day. After the escape, the moderator facilitated a debriefing, allowing residents to reflect on their experience. Participants then completed surveys about the escape room. After their escape, residents took group pictures with signs and props to post on social media. **Evaluation/Outcome:** A total of 21 residents participated and completed surveys. All residents escaped. All agreed or strongly agreed that the sepsis escape room experience increased their understanding of sepsis as a medical emergency. All agreed or strongly agreed that the exercise increased their understanding of the 3- and 6-hour sepsis bundles. All agreed or strongly agreed that the escape room improved their ability to work as a team. One resident commented on the survey, "It was fun to work as a team, and the activities were fun, but also put a realistic spin on it. I really enjoyed it." Based on survey responses, the escape room was successful in helping residents build confidence in recognizing and treating sepsis.

EB42: Zero CAUTI Performance Improvement Project

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Purpose: With increasing patient acuity, increasing numbers of hospital-associated infections, and decreasing reimbursement, nurse leaders were confronted with developing and implementing an evidence-based catheter-associated urinary tract infection (CAUTI) prevention program in the intensive care unit (ICU). Each CAUTI is associated with increased patient discomfort and risk for death, and an increased cost of $758 to $10 197, depending on patient and population factors. **Summary:** The ICU nursing staff was educated on the indications for a urinary catheter in critically ill patients and that urinary catheter removal was most beneficial within the first 2 calendar days after insertion. An algorithm was developed for the removal of urinary catheters; the algorithm included alternative measures such as bladder scanning, intermittent catheterization, and external male/female catheters. In addition, an ICU-specific urinary catheter discontinuation protocol was developed for the electronic health record. Urinary catheter necessity was reviewed daily during multidisciplinary rounds and via a visual track board at the nursing station. Nurses were empowered to advocate with medical providers for removal of the urinary catheter when a catheter was no longer indicated. The term *critically ill* was more clearly defined as referring to patients receiving multiple vasoactive medications via infusion, those with large-volume diuresis, or with life-sustaining instrumentation in place. **Evaluation/Outcome:** From July 2016 to June 2017, the CAUTI rate was 6.1/1000 catheter days. After implementation of the CAUTI prevention program, there were 0 CAUTIs per 1000 catheter days from July 2017 to June 2018. The incidence of CAUTI was eliminated in the ICU. This bundled, evidence-based intervention program could be replicated by motivated nurse leaders in other hospital units and organizations to affect CAUTIs in their own ICUs.