



ARTICLES FEATURING CONTINUING EDUCATION UNITS (CEUS)

SEPTEMBER-OCTOBER 2014

ADVANCES IN SKIN & WOUND CARE

Weir, G. R., H. Smart, et al. (2014). "[Arterial Disease Ulcers, Part 1: Clinical Diagnosis and Investigation.](#)" *Advances in Skin & Wound Care* **27**(9): 422-428.

TEST: (2014). "[Arterial Disease Ulcers, Part 1: Clinical Diagnosis and Investigation.](#)" *Advances in Skin & Wound Care* **27**(9): 429-430. **Valid for 2.5 accredited hours.**

Weir, G. R., H. Smart, et al. (2014). "[Arterial Disease Ulcers, Part 2: Treatment.](#)" *Advances in Skin & Wound Care* **27**(10): 462-476.

TEST: (2014). "[Arterial Disease Ulcers, Part 2: Treatment.](#)" *Advances in Skin & Wound Care* **27**(10): 477-478. **Valid for 3.0 accredited hours.**

AMERICAN JOURNAL OF CRITICAL CARE:

Burk, R. S., M. J. Grap, et al. (2014). "[PREDICTORS OF AGITATION IN CRITICALLY ILL ADULTS.](#)" *American Journal of Critical Care* **23**(5): 414-423.

Background Agitation in critically ill adults is a frequent complication of hospitalization and results in multiple adverse outcomes. Potential causes of agitation are numerous; however, data on factors predictive of agitation are limited. Objectives To identify predictors of agitation by examining demographic and clinical characteristics of critically ill patients. Methods A medical record review was performed. Documentation of agitation was indicated by scores on the Richmond Agitation-Sedation Scale or the use of an agitation keyword. Records of 200 patients from 1 medical and 1 surgical intensive care unit were used for the study. Risk factors were determined for 2 points in time: admission to the intensive care unit and within 24 hours before the first episode of agitation. Data on baseline demographics, preadmission risk factors, and clinical data were collected and were evaluated by using logistic multivariable regression to determine predictors of agitation. Results Predictors of agitation on admission to intensive care were history of use of illicit substances, height, respiratory and central nervous system subscores on the Sequential Organ Failure

Assessment, and use of restraints. Predictors of agitation within 24 hours before the onset of agitation were history of psychiatric diagnosis, height, score on the Sequential Organ Failure Assessment, ratio of PaO₂ to fraction of inspired oxygen less than 200, serum pH, percentage of hours with restraints, percentage of hours of mechanical ventilation, pain, and presence of genitourinary catheters. Conclusions Predictors of agitation on admission and within 24 hours before the onset of agitation were primarily clinical variables.

TEST: included with the article. **Valid for 1.0 accredited hours.**

Guttendorf, J., A. J. Boujoukos, et al. (2014). "[DISCHARGE OUTCOME IN ADULTS TREATED WITH EXTRACORPOREAL MEMBRANE OXYGENATION.](#)" *American Journal of Critical Care* **23**(5): 365-377.

Background Extracorporeal membrane oxygenation (ECMO) is used for critically ill patients when conventional treatments for cardiac or respiratory failure are unsuccessful. Objectives To describe patient and treatment characteristics and discharge outcome for ECMO patients, determine which characteristics are associated with good (survival) versus poor (death before hospital discharge) outcomes, and compare characteristics of patients with cardiac versus respiratory failure indicating ECMO. Methods Single-center, retrospective review of all adult patients treated with ECMO from 2005 through 2009. Results A total of 212 patients received ECMO for cardiac (n = 126) or respiratory (n = 86) failure. Mean age was 51 (SD, 14.5) years; support duration was 135 (SD, 149) hours. Survival to discharge was 33% overall; 50% for respiratory indication and 21% for cardiac indication patients. Patients with poor outcomes were older (53 vs 47 years, P = .007), more likely to require cardiovascular support before ECMO (99% vs 91%; = .02), and had more transfusions (48 vs 24 units, = .005) and complications (99% vs 87%; P < .001) than did patients with good outcomes. For cardiac patients, older age was associated with poor outcome (poor, 55 vs good, 48 years; P = .01). For respiratory patients, poor outcome was associated with more ventilator days before ECMO (poor, 6 vs good, 3; P = .01), higher peak inspiratory pressure (poor, 39 vs good, 35 cm H₂O; P = .02), and lower pulmonary compliance (poor, 19 vs good, 25 mL/cm H₂O; P = .008). Conclusions Patients with respiratory indications for ECMO experienced better survival than did cardiac patients. Increasing age was associated with poor outcome. Complications, regardless of ECMO indication, were common and associated with poor outcome.

TEST: included with the article. **Valid for 1.0 accredited hours.**

Rose, L., K. N. Dainty, et al. (2014). "[WEANING FROM MECHANICAL VENTILATION: A SCOPING REVIEW OF QUALITATIVE STUDIES.](#)" *American Journal of Critical Care* **23**(5): e54-71.

Background Weaning from mechanical ventilation is influenced by patient, clinician, and organizational factors. Objective To identify factors that may influence weaning and adoption of weaning strategies and tools, clinicians' perceptions of weaning strategies, and weaning experiences of patients and patients' families. Method A scoping review of indexed and nonindexed publications (1990-2012) was done. Qualitative studies of health care providers, patients, and patients' families involved in weaning were included. Two investigators independently screened 8350 publications and extracted data from 43 studies. Study themes were content analyzed to identify common categories and themes within the categories. Results The study sample consisted of nurses in 15 studies, nurses and patients in 1 study, various health care providers in 11, patients in 10, and physicians in 4. Categories identified were as follows: for nurses, role or scope of practice, informing decision making, and influence on weaning outcome; for health care providers, factors influencing weaning decisions or use of protocols, role or scope of practice related to weaning, and organizational structure or practice environment; for patients, experience of mechanical ventilation and weaning, experience of the intensive care environment, psychological phenomena, and enabling success in weaning; and for physicians, tools or factors to facilitate weaning decisions and perceptions of nurses' role and scope of practice. Conclusions Important issues identified were perceived importance of interprofessional collaboration and communication, need to combine subjective knowledge of the patient with objective clinical data, balancing of weaning systematization with individual needs, and appreciation of the physical and psychological work of weaning.

TEST: included with the article. **Valid for 1.0 accredited hours.**

AMERICAN JOURNAL OF NURSING

Reed, S. M., A. J. Brock, et al. (2014). "[Champions for Central Line Care.](#)" *American Journal of Nursing* **114**(9): 40-48.

In 2012, acute care hospitals in the United States reported 30,100 central line-associated bloodstream infections (CLABSIs) to the National Healthcare Safety Network of the Centers for Disease Control and Prevention. Known to substantially increase morbidity, length of stay, and cost of care, CLABSIs are associated with a mortality rate of 12% to 25% and an additional cost of \$22,885 to \$29,330 per incident. Following five months with a sustained CLABSI rate of zero per 1,000 catheter days, the acuity adaptable critical care unit at Geisinger Medical Center in Danville, Pennsylvania, saw the CLABSI rate spike to 3.97 per 1,000 catheter days in March 2011, prompting a quality improvement project and, ultimately, the implementation within the unit of a champion team program to guide central line care.

TEST: (2014). Contrada, E. (2014). [Champions for Central Line Care.](#) *American Journal of Nursing* **114**(9): 49-50. **Valid for 2.8 accredited hours.**

Yoder, L. H., D. Kirkley, et al. (2014). "[Staff Nurses' Use of Research to Facilitate Evidence-Based Practice.](#)" *American Journal of Nursing* **114**(9): 26-37.

Objectives:To determine to what extent RNs in an acute care multihospital system used research findings in their practice; what types of knowledge they used in their practice; and what personal, professional, and organizational factors enhanced or hindered their research utilization. **Methods:** A cross-sectional, descriptive, online survey design was used. The survey, which asked about use of research findings in practice and evidence-based practice (EBP) participation, was placed on the hospital system intranet. Of the 2,900 RNs invited to participate, 1,112 nurses completed usable surveys, for a response rate of 38%. This article reports findings for 794 of the staff nurses who responded to the survey. **Results:**The forms of knowledge that staff nurses reported relying on most were their personal experience with patients, conferences, hospital policies and procedures, physician colleagues, and nursing peers. Although a variety of resources were available for nurses to use in locating research and implementing EBP, respondents reported many of the same barriers that have been reported in other studies over the last two decades; lack of time, lack of resources, and lack of knowledge. Although their attitudes about research utilization and EBP were positive overall, respondents expected unit-based educators and clinical nurse specialists to collect and synthesize the research for them. **Conclusions:** These findings are similar to those of other recent studies regarding nurses' research utilization and EBP. A great deal of work remains to be done if we are to inform, educate, and assist staff nurses in using research and implementing EBP. It may be unrealistic to expect bedside nurses to add these activities to their duties unless they are compensated for the time and have the support of master's- or doctor-ally prepared nurses to serve as EBP coaches and champions.

TEST: (2014). Contrada, E. (2014). "[Staff Nurses' Use of Research to Facilitate Evidence-Based Practice.](#)" *American Journal of Nursing* **114**(9): 38, 50. **Valid for 3.0 accredited hours.**

CRITICAL CARE NURSE:

Bartlett, D. (2014). "[Intravenous Lipids: Antidotal Therapy for Drug Overdose and Toxic Effects of Local Anesthetics.](#)" *Critical Care Nurse* **34**(5): 62-67.

Intravenous lipid emulsion is an accepted therapy for the treatment of severe cardiac toxic effects caused by local anesthetics. Lipid emulsion therapy has also been used successfully to treat cardiac arrest and intractable arrhythmias caused by overdoses of antiepileptic drugs, cardiovascular drugs, and psychotropic medications, but experience with intravenous lipids as antidotal therapy in these clinical situations is limited. However, intravenous lipids are relatively safe, widely available, and easy to administer, and many published

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case reports document their dramatic effectiveness. Patients who have not responded to standard therapies have been quickly revived by administration of intravenous lipids. Use of lipids most likely will increase, and critical care nurses should be familiar with lipid therapy.

TEST: included with the article. **Valid for 1.0 accredited hours.**

Menglin, T., F. Mei, et al. (2014). "[Closed Blood Conservation Device for Reducing Catheter-Related Infections in Children After Cardiac Surgery.](#)" *Critical Care Nurse* **34**(5): 53-61.

BACKGROUND: Arterial catheters are potential sources of nosocomial infection. OBJECTIVE: To investigate use of a closed blood conservation device in preventing catheter-related bloodstream infections in children after cardiac surgery. METHODS: Children with an indwelling arterial catheter after cardiac surgery were randomly assigned to 2 groups: a control group with a conventional 3-way stopcock in the catheter system and an interventional group with the conservation device in the catheter system. Catheter tips, catheter intraluminal fluid, and blood samples obtained from the catheter and peripherally were cultured for microbiological analysis. RESULTS: Intraluminal fluid contamination was significantly lower ($P = .03$) in the interventional group (3 of 147 catheters) than in the control group (10 of 137 catheters). The 2 groups did not differ significantly in the rate of tip colonization (9 of 147 vs 12 of 137; $P = .40$) or in the number of catheter-related bloodstream infections (0 of 147 vs 2 of 137; $P = .21$). CONCLUSION: Use of a closed blood conservation device could decrease the incidence of catheter-related contamination of intraluminal fluid.

TEST: included with the article. **Valid for 1.0 accredited hours.**

Petlin, A., M. Schallom, et al. (2014). "[Chlorhexidine Gluconate Bathing to Reduce Methicillin-Resistant Staphylococcus aureus Acquisition.](#)" *Critical Care Nurse* **34**(5): 17-26.

BACKGROUND: Methicillin-resistant Staphylococcus aureus (MRSA) is a virulent organism causing substantial morbidity and mortality in intensive care units. Chlorhexidine gluconate, a topical antiseptic solution, is effective against a wide spectrum of gram-positive and gram-negative bacteria, including MRSA. OBJECTIVES: To examine the impact of a bathing protocol using chlorhexidine gluconate and bath basin management on MRSA acquisition in 5 adult intensive care units and to examine the cost differences between chlorhexidine bathing by using the bath-basin method versus using prepackaged chlorhexidine-impregnated washcloths. METHODS: The protocol used a 4-oz bottle of 4% chlorhexidine gluconate soap in a bath basin of warm water. Patients in 3 intensive care units underwent active surveillance for MRSA acquisition; patients in 2 other units were monitored for a new positive culture for MRSA at any site 48 hours after admission. RESULTS: Before the protocol, 132 patients acquired MRSA in 34333 patient days (rate ratio, 3.84). Afterwards, 109 patients acquired MRSA in 41376 patient days (rate ratio, 2.63). The rate ratio difference is 1.46 (95% CI, 1.12-1.90; $P = .003$). The chlorhexidine soap and bath basin method cost \$3.18 as compared with \$5.52 for chlorhexidine-impregnated wipes (74% higher). CONCLUSIONS: The chlorhexidine bathing protocol is easy to implement, cost-effective, and led to decreased unit-acquired MRSA rates in a variety of adult intensive care units.

TEST: included with the article. **Valid for 1.0 accredited hours.**

HOME HEALTHCARE NURSE:

Freeland, B. (2014). "[DIABETES SELF-CARE ASSESSMENT.](#)" *Home Healthcare Nurse* **32**(8): 458-462.

Diabetes is a common diagnosis for home, care patients. Conducting an assessment of diabetes self-care management knowledge and skills can identify areas for improvement and support and pinpoint individual self-care barriers. This article will provide targeted questions that may be used by the home care nursing professional when conducting such an assessment.

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TEST: "[DIABETES SELF-CARE ASSESSMENT](#)." *Home Healthcare Nurse* **32**(8): 463-465. **Valid for 2.1 accredited hours.**

JOURNAL OF CHRISTIAN NURSING:

Kroning, M. (2014). "[ADVANCE DIRECTIVES EDUCATION: A CRITICAL NEED](#)." *Journal of Christian Nursing* **31**(4): 220-226.

TEST: (2014). "[ADVANCE DIRECTIVES EDUCATION: A CRITICAL NEED](#)." *Journal of Christian Nursing* **31**(4): 226-227. **Valid for 2.5 accredited hours.**

JOURNAL OF CONTINUING EDUCATION IN NURSING:

Lewallen, L. P., et al. (2014). "[Regulation and Accreditation Requirements for Preceptor Use in Undergraduate Education](#)." *Journal of Continuing Education in Nursing* **45**(9): 386-390.

Background: Nurse preceptors are widely used in prelicensure RN education to facilitate the educational process. Often, these preceptors are staff nurses employed by clinical agencies. Currently, there are no standardized guidelines for qualifications, roles and responsibilities, or best practices. Method: Systematic website review was conducted of all Boards of Nursing and nursing accrediting bodies in the United States and Canada. Results: Seven categories of information were identified: preceptor qualifications, faculty and nursing program role, curriculum placement, written policies, ratios, orientation, and preceptor availability. Conclusion: Research is needed to document issues and current practices to create a model of best practices in preceptor orientation and use, as well as faculty supervision in prelicensure nursing education. *J Contin Educ Nurs*. 2014;45(9):386-390.

TEST: (2014). "[CNE QUIZ](#)." *Journal of Continuing Education in Nursing* **45**(9): 391-392. **Valid for 1.1 accredited hours.**

JOURNAL OF HOSPICE & PALLIATIVE NURSING

Palese, A., G. Condolo, et al. (2014). "[Persistent Hiccups in Advanced Neuro-oncology Patients: Findings From a Descriptive Phenomenological Study](#)." *Journal of Hospice & Palliative Nursing* **16**(7): 396-401.

There is insufficient evidence to guide the treatment of persistent or intractable hiccups; to date, no studies have involved advanced neuro-oncological patients who have experienced persistent hiccups with the aim of understanding their experience, gaining insights, and contributing to knowledge in the field. A purposeful sample of 5 consecutive patients suffering from more than 1 persistent hiccup experience lasting more than 48 hours and persisting for less than 1 month, aged at least 18 years, able to answer open-ended questions, and who had given informed consent were invited to participate. Recruitment ended when data saturation was achieved. According to the patients' experience, living with persistent hiccups was characterized by 3 main themes: (a) resignation to its unpredictable nature; (b) despair that there is nothing worse than hiccups; and (c) learning to control the pauses. Persistent hiccups have a negative impact on patients' and families' quality of life, leading to extreme anguish and to a feeling of powerlessness when it becomes clear that there is no useful pharmacological therapy. In trying to interrupt hiccups, patients learn to control their pauses, lengthening the interval between 1 spasm and the next. Adopting this palliative effort, patients might reach 4 hiccups/min, with 1 every 15 seconds, achieving an acceptable level of symptom discomfort.

TEST: (2014). "[Persistent Hiccups in Advanced Neuro-oncology Patients: Findings From a Descriptive Phenomenological Study](#)." *Journal of Hospice & Palliative Nursing* **16**(7): 402-403. **Valid for 2.5 accredited hours.**

Santucci, G., V. Battista, et al. (2014). "[Caring for the Infant With Trisomy 18: The Bioethical Implications of Treatment Decisions on Nurses](#)." *Journal of Hospice & Palliative Nursing* **16**(7): 388-393.

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Infants born with trisomy 18 have multiple congenital abnormalities and shortened life spans. Advances in medical and surgical technology have provided some families with choices to optimize care. Given the differing outcomes that exist for infants born with trisomy 18, several questions are raised that carry weighty ethical implications. A case study will be discussed to illustrate the ethical dilemmas that nurses encounter when caring for infants with Trisomy 18. These dilemmas include the following: (1) When is it ethical to limit options offered for medical interventions? (2) Who makes decisions when options for medical interventions are considered futile? (3) What principles guide decisions about care? (4) What options are available to nurses when they do not agree with family members about suffering?

TEST: (2014). "[Caring for the Infant With Trisomy 18: The Bioethical Implications of Treatment Decisions on Nurses.](#)" *Journal of Hospice & Palliative Nursing* **16**(7): 394-395. **Valid for 2.5 accredited hours.**

JOURNAL OF INFUSION NURSING:

Ast, D. and T. Ast (2014). "[Nonthrombotic Complications Related to Central Vascular Access Devices.](#)" *Journal of Infusion Nursing* **37**(5): 349-358.

TEST: (2014). "[Continuing Education for Nursing Contact Hours and CRNI® Recertification Units.](#)" *Journal of Infusion Nursing* **37**(5): 396-399. **Valid for 6.0 accredited hours.**

NURSE PRACTITIONER:

Anderson, J. A. (2014). "[The golden hour: performing an acute ischemic stroke workup.](#)" *Nurse Practitioner* **39**(9): 22-29.

This Ischemic stroke is a medical emergency resulting from an embolic or thrombotic occlusion of an intracranial artery. The purpose of this article is to provide acute care nurse practitioners a summary of recent updates on the rapid evaluation and workup for patient selection and treatment with I.V. fibrinolysis.

TEST: (2014). "[The golden hour: performing an acute ischemic stroke workup.](#)" *Nurse Practitioner* **39**(9): 29-30. **Valid for 2.5 accredited hours.**

Hart, A. M. (2014). "[Evidence-based diagnosis and management of acute bronchitis.](#)" *Nurse Practitioner* **39**(9): 32-39.

Acute bronchitis is a common respiratory infection seen in primary care settings. This article examines the current evidence for diagnosis and management of acute bronchitis in adults and provides recommendations for primary care clinical practice.

TEST: (2014). "[Evidence-based diagnosis and management of acute bronchitis.](#)" *Nurse Practitioner* **39**(9): 39-40. **Valid for 2.0 accredited hours.**

NURSING

Goldich, G. (2014). "[12-lead ECG part II: Identifying common abnormalities](#)" *Nursing* **44**(9): 30-36.

TEST: (2014). "[12-lead ECG part II: Identifying common abnormalities](#)" *Nursing* **44**(9): 36-37. **Valid for 2.3 accredited hours.**

Hussar, D. A. (2014). "[New drugs 2014: Part 3.](#)" *Nursing* **44**(10): 28-34.

TEST: (2014). "[New drugs 2014: Part 3.](#)" *Nursing* **44**(10): 28-34. **Valid for 2.5 accredited hours.**

McGraw, M. (2014). "[Getting ahead of penetrating neck injuries.](#)" *Nursing* **44**(10): 36-42.

TEST: (2014). "[Getting ahead of penetrating neck injuries.](#)" *Nursing* **44**(10): 42-43. **Valid for 2.0 accredited hours.**

Pirrung, J. and D. Mower-Wade (2014). "[Early recognition of pelvic fractures.](#)" *Nursing* **44**(9): 38-45.

TEST: (2014). "[Early recognition of pelvic fractures.](#)" *Nursing* **44**(9): 45-46. **Valid for 2.0 accredited hours.**

NURSING MADE INCREDIBLY EASY

(2014). "[The growing trend of medical marijuana.](#)" *Nursing Made Incredibly Easy* **12**(5): 30-39.

TEST: online at <https://nursing.ceconnection.com/nu/public/journals/12> . **Valid for 2.3 accredited hours.**

Barlow, W. and L. H. Shepard (2014). "[Care of the patient with bladder cancer.](#)" *Nursing Made Incredibly Easy* **12**(5): 40-49.

TEST: online at <https://nursing.ceconnection.com/nu/public/journals/12> . **Valid for 2.0 accredited hours.**

NURSING MANAGEMENT

Volland, J. (2014). "[Remodeling a broken system through hospital-payer partnerships.](#)" *Nursing Management* **45**(9): 30-36.

TEST: (2014). "[Remodeling a broken system through hospital-payer partnerships.](#)" *Nursing Management* **45**(9): 36-37. **Valid for 1.5 accredited hours.**