

In this issue

WHAT IS POST INTENSIVE CARE SYNDROME?

UNREADABLE BARCODES

REDUCE STRESS: COLOR!

BARE NEWS: WHAT YOU NEED TO KNOW!

IMAGING REVIEW COURSE

ORNA SPRING EDUCATION

ARIN BOARD OF DIRECTORS

WHERE HAVE THE NURSES GONE?

Greg Laukhuf ND, RN, CRN, RN-BC, NE-BC

Over the years of my career, I have witnessed several cycles of “Where are the nurses?” With the rash of headlines regarding the nursing shortage due to retiring Baby Boomers, it occurred to me that on the start of Nurses Week 2018 the question is still applicable and should be “Where are the Radiology Nurses?”

The truth is, radiology nursing is challenging and tough work; it will likely always be. We walk on sacred ground; we are present during the most difficult and most exciting moments of a person’s life. Today, radiology nurses are under tremendous pressure to treat more complex conditions quicker and with fewer resources. In the United States, as our population ages, greater demands are placed on an already strained healthcare system. This is happening as America’s nurse corps are aging.

As I consider the question, “Where are the Radiology Nurses?” I think about my thirty plus years of nursing practice. I am still in the profession because, like many of my peers, I feel I make a difference for my patients.

Caring, compassion, and empathy are driving forces and prevailing principles that strengthen and support our profession. The art and science of nursing is holistic, healing, and health-promoting. Even though nursing is the fastest-growing occupation in the United States, demand is outstripping supply. We currently find ourselves amid a nursing shortfall with the obvious question, “Where are the nurses?”

It is true, we need nurses. It is important to remember that even as we work diligently and creatively to fix the issue, nurses are still visible, industrious, and vital. Look

closely around you and you will see that radiology nurses are everywhere.

Radiology Nurses are in the emergency departments, intensive care units and radiology departments caring for the critically injured and ill. We are caring for patients in the community outpatient settings, in pediatric areas. We are teaching, educating nurses to be skilled clinicians in radiology.

Radiology Nurses respond to natural and unnatural disasters. We care for patients no matter their ethnicity, religion, or race. We are at bedsides with dying people, helping make their last earthly moments peaceful ones. We’re at the statehouse crafting legislation and lobbying for healthcare changes that, despite seemingly insurmountable odds, improve and save lives.

Radiology Nurses run alongside breast cancer survivors in the Race for the Cure, women who have triumphed over cancer and have beaten the odds. They are comforting patients and families while offering hope where hope sometimes seems unattainable.

Radiology Nurses are everywhere but according to headlines we are becoming fewer. Sometimes you wonder if there will be a nurse for you when you need one. Florence’s birthday marks the end of Nurses Week where we honor nurses and celebrate their commitment to caring, compassion, and making a difference. Thank you for all you do!

Thank you to our corporate sponsors



References
Clark, C. (2018). Where are the nurses? A Nurses Week tribute. Reflections on Nursing Leadership. Retrieved <https://www.reflectionsonnursingleadership.org/features/more-features/where-are-the-nurses-a-nurses-week-tribute>

WHAT IS POST INTENSIVE CARE SYNDROME?

Greg Laukhuf ND, RN, CRN, RN-BC, NE-BC

Radiology Nurses cover a wide range of patients and care issues. Recently when caring for a patient, the ICU nurse mentioned PICS (Post Intensive Care Syndrome) to me in handoff report. Since I was not familiar with the syndrome, I thought other ARIN members would be interested in what I found.

Post Intensive Care Syndrome results from time spent in an Intensive Care Unit (ICU). During the stay, patients are at risk to develop issues in four groups. Difficulty with cognition and emotional or psychological problems comprise the first group. Group two, thinking issues may include: not able to pay attention, forgetful, and having a hard time solving problems or finishing tasks. The third group, physical issues may include: muscle weakness/wasting, weight loss, pain, sexual problems and a weakened immune system. The final group, emotional issues may include: Anxiety, depression, crying, post-traumatic stress disorder and nightmares.

These issues impact their lives and recovery. Together, they are labeled Post Intensive Care Syndrome, or PICS. The interconnection of PICS is the illness, treatments and being in a new place. Literature searches reveal that the syndrome occurs in over 50% of patients who have been in the ICU over 1 week. Some estimates place it as affecting about 1 in 3 patients.

Family can also suffer from the effects of PICS (known as PICS-F) due to stressors of having a loved one who is very sick, worry, lack of rest and a good diet. As many as 1 in 3 family members of patients in the ICU, may experience emotional symptoms of PICS (Davidson, Harvey, and Schuller; 2013).

The Nurses Role

As a nurse, you can make an impact on your patients. For families of ICU patients, communication and information help minimize adverse outcomes. What you say, how you say it, how soon, how often, and how patients and families perceive it are factors that impact the illness. Early mobility is known to decrease physical problems and delirium in ICU patients. Evidence-based practice suggests clinician practices which can minimize the effects of hospital stays.

High sedation levels, delirium, and immobility are risk factors for PICS. Other risk factors include sepsis, hypoxia, and hypoglycemia. After assessing the patient's and family's risk for PICS and PICS-F, the care team should implement an ABCDE Risk bundle. The ABCDE bundle is a group of interventions that addresses the risks of sedation, delirium, and immobility. This bundle is outlined below and supports the new guidelines on pain, agitation, and delirium published by the Society of Critical Care Medicine (Davidson, 2017).

A, B, and C

A, B, and C stand for airway management, breathing, and communication/coordination of care among health care givers. The lightest levels of sedation should be used so patients can communicate and engage in activities. Heavy sedation causes immobility and debilitation. A heavily sedated brain may suffer cognitive or mental-health problems later.



Be aware that many medications used to treat pain have sedative effects. Using standardized tools to monitor pain, agitation, and sedation at routine intervals can allow the use of lighter sedation levels that enable patients to be active and keep the brain engaged. Of course, keeping patients occupied without self-extubating may mean more work for nurses. Family members can play a role in this regard; encouraging them to be involved can help safeguard their mental health while helping the nurse deal with a more fully awake patient.

D and E

D stands for delirium assessment and prevention. The new sedation guideline from the American College of Critical Care Medicine and SCCM suggests clinicians should avoid benzodiazepines in ICU patients (except in cases of alcohol or benzodiazepine withdrawal) due to the potential for delirium.

E reflects the focus on early mobility to decrease delirium. Early mobility is linked to maintenance of cognitive and physical functions. The patient's family can promote mobility by helping with passive range-of-motion exercises when out-of-bed activities aren't possible; they can encourage active range-of-motion exercises when the patient is able to do these. Even intubated patients should increase their activity level with the oversight of the nurse and therapist.

After the ICU

The ABCDE bundle is part of a larger bundle called the ABCDEFGH. The FGH elements address the transitions out of the ICU.

F

F stands for follow-up referrals. Referrals need to address any element of PICS or PICS-F and include respiratory, physical, occupational, and speech therapists. Spiritual, financial, and case management referrals should also be considered if appropriate. It is also important to include counseling or psychiatric referrals for aid in coping with their emotions.

A new concept in inpatient care is consistent functional reconciliation, in which the nurse compares the patient's current functional status with what it was before hospitalization. Functional reconciliation requires close collaboration between nurses and therapists. Nurses should review therapists' documentation, note the patient's functional independence measure, and add a formal functional assessment to the handoff report to allow trending and adjustment of treatments and referrals.

G

G stands for good handoff communication. The handoff report should include the family. Nurses should consider PICS and PICS-F elements that may have been overlooked.

H

H stands for handing out information about the elements of PICS or PICS-F to the patient. Unusual thoughts, mental-illness symptoms, and cognitive and functional losses can be disturbing for patients. Knowing that other ICU patients have had these problems can be comforting and help the patient/family find the care they need.

And Finally...

Many PICS survivors and their families need to talk to healthcare providers about their persistent problems after discharge. To help meet this need for communication, team members should be considering making follow-up phone calls to discharged patients and their families.

The web is full of tools to use for your patients. The American Association of Critical-Care Nurses has posted tools for nurses on the "ABCDE bundle at the bedside" at www.aacn.org/pearl-abcde. These tools are useful for all healthcare givers.

Healthcare providers need to go beyond saving the lives of critically ill patients. Doing this isn't easy, but it's vital to ensuring the best possible outcomes for our patients.

References

Davidson, J., Harvey, M., and Schuller, J. (2013). Post-intensive care syndrome: What it is and how to help prevent it. Vol. 8 No. 5. Retrieved <https://www.americannursetoday.com/post-intensive-care-syndrome-what-it-is-and-how-to-help-prevent-it/>

Davidson, J., Aslakson, R., Long, A., Puntillo, K., Kross, E., Hart, J., Cox, C., Wunsch, M., Wickline, Mary A. MLIS, MEd; Nunnally, M., Netzer, G., Kentish-Barnes, N., Sprung, C., Hartog, S., Coombs, M., Gerritsen, T., Hopkins, O., Franck, L. Y., Kon, A., Scruth, E., Harvey, M., Lewis-Newby, M., White, D., Swobodá, M., Cooke, C., Levy, M., Azoulay, E., Curtis, J. (January 2017). Guidelines for Family-Centered Care in the Neonatal, Pediatric, and Adult ICU. *Critical Care Medicine* 45(1). 103-128. doi: 10.1097/CCM.0000000000002169

Vison is a publication of the Association for Radiologic and Imaging Nurses Association. Comments and questions may be addressed to Senior Editor; Greg Laukhuf ND, RN-BC, CRN, NE-BC at greg.laukhuf@arinursing.org.

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UNREADABLE BARCODES AND MULTIPLE BARCODES ON PACKAGES CAN LEAD TO ERRORS

Greg Laukhuf ND, RN, CRN, RN-BC, NE-BC

We all know what they are. We use them in our daily work. We even know the frustration at the checkout line when the code will not scan. Recently, the Institute for Safe Medical Practices (ISMP) has described barcode scanning complications with products that could previously be scanned. The linear barcode on the FLOVENT HFA (fluticasone) inhaler was repositioned by the manufacturer on the container. The new position may not be readable due to scanner requirements for specific focal distances, angles, and orientations. The bending of a barcode on a curved surface affects how light reflects off it disrupting scanners attempting to read the barcode (ISMP, 2017).

The US Food and Drug Administration (FDA) instructs companies to include barcode readability when designing product labels. There are several types of barcodes used on products based on the encoding data that a scanner can decode. They are the linear (1 dimensional [1D]) barcode typically encodes the national drug code (NDC) number and a 2D (2 dimensional) data matrix barcode. The latter barcode contains more information than a linear barcode, and includes the NDC, lot number, and expiration date of the drug. Although scanners can read both linear and 2D data matrix barcodes, some may require additional software, so they can extract 2D barcode information. Other barcodes types contained on drug containers include a Quick Response (QR) code, which is a type of 2D code used for accessing product information and websites. QR code is not used for automated product identification purposes. Over-the-counter (OTC) products such as Acetaminophen must contain a Universal Product

Code (UPC), a linear barcode that scanners and some QR code readers can read (Cummings, Ratko, Matuszewski, 2005).

On some product labels, you may also find a 2D data matrix barcode pursuant to the Drug Supply Chain Security Act (DSCSA). The DSCSA, enacted in 2013, requires a 2D data matrix barcode on the smallest container intended for individual sale to a dispenser, and manufacturers had until November 27, 2017, to comply. However, a linear barcode is still required. Barcode repositioning and two barcodes on labels are causing scanning difficulties, as mentioned earlier with the Flovent inhaler. These issues are due to the addition of a 2D data matrix barcode to some product labels. The presence of two barcodes can lead to confusion regarding which barcode should be scanned (Koppel, Telles, & Karsh, 2008).

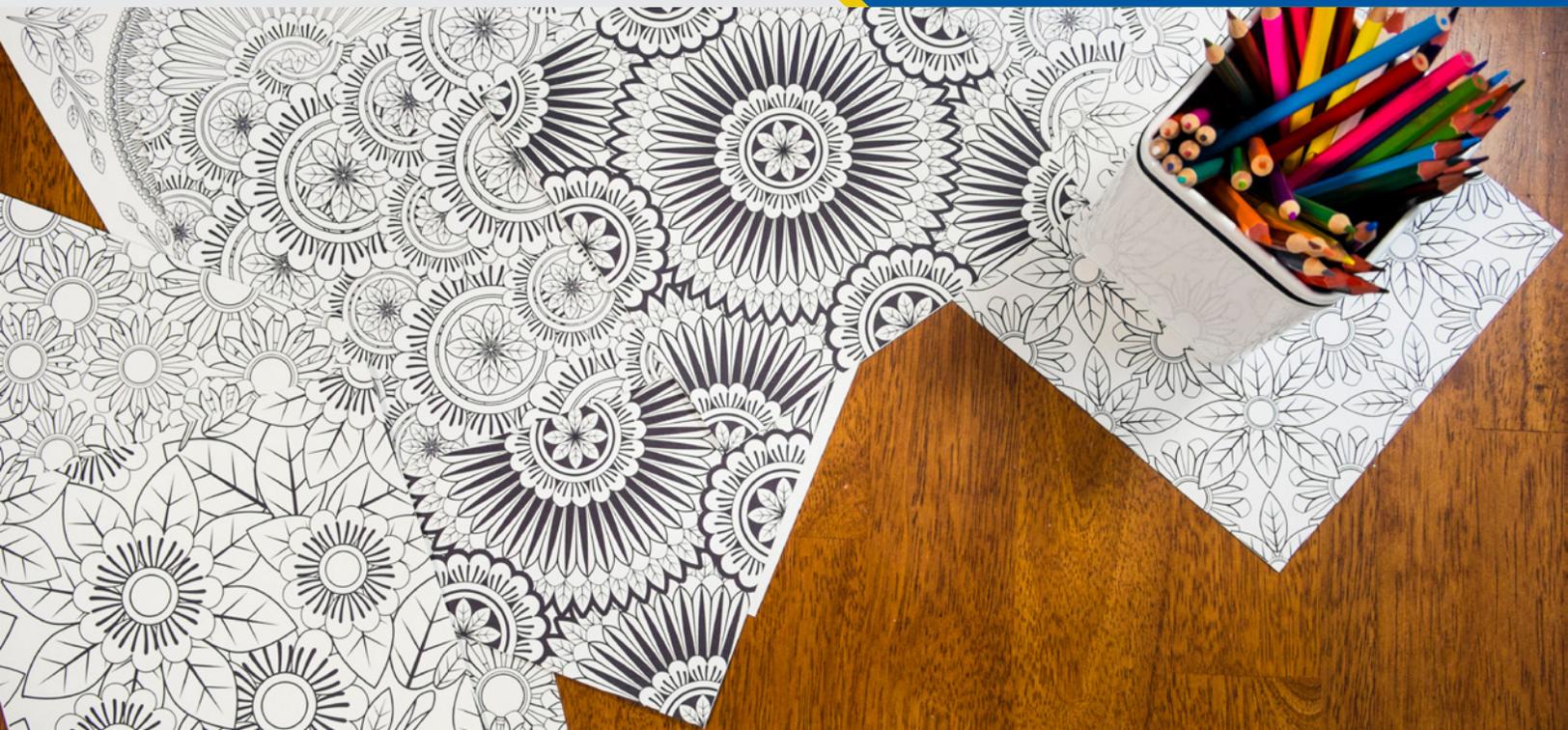
The presence of two barcodes on product labels can cause confusion, all practitioners should be aware of the new DSCSA requirement to include a 2D data matrix barcode on certain product labels in addition to the usual linear barcode. Nurses should be aware which barcode to scan for verification during the drug preparation, dispensing, and administration processes.

References

Cummings J, Ratko T, Matuszewski K. Barcoding to enhance patient safety. 1) Patient Safety & Quality Healthcare. September/October 2005. www.psqh.com/sep05/barcodingrid1.html

Koppel R, Wetterneck T, Telles JL, Karsh BT. Workarounds to barcode medication administration systems: their occurrences, causes, and threats to patient safety. J Am Med Inform Assoc. 2008;15(4):408-23.

ISMP. (February 2018) Nurse Advice ERR. Unreadable barcodes and multiple barcodes on packages can lead to errors. Volume 16 Issue 2.



REDUCE STRESS: COLOR!

Christine Rose, BSN, RN, Clinical Coordinator Breen Breast Pavilion
University Hospitals Cleveland Medical Center

Coloring pictures is an activity usually associated with children. Growing older we trade our crayons and markers for pens and highlighters. However, the activity and focus of coloring can help reduce stress and provide other mental health benefits. "It has potential to reduce anxiety, create focus and increase mindfulness" (Cironne, 2016).* Even the renowned psychologist, Carl G. Jung, used coloring as a relaxation technique in the early 1900s.

Anxiety is defined by extreme apprehension and worry. It is a normal reaction to stressful situations. Patients at the Breen Breast Pavilion often experience a phenomenon called "breast cancer screening anxiety" (Burn, 2015).* Screening mammograms, call backs and personal and family histories of breast cancer can increase patient's worry.

One of our goals at the Breen Breast Pavilion is to help patients reduce stress. We strive to create a calm, relaxing environment. Patients wait for their exams in a serene, all female sitting area where we offer snacks, refreshments, comfortable chairs, reading material and HGTV. Recently, we have added an adult coloring station, which includes individual coloring pages and word search puzzles.

We hope these additional stress reducers will improve the patient experience and satisfaction at the Breen Breast Pavilion. Many staff have expressed an interest in trying it themselves.

Consider your patients needs in your area of practice. By their nature, medical facilities evoke anxiety. Think about your patients and stress levels in your particular area of practice. Consider creating a coloring station as one way to reduce patient anxiety. Sometimes the simplest activities can make the strongest impact.

Happy coloring!

References

Cironne, M. (June 2016). Calming down with coloring books for grown ups: A new trend in stress relief. *Meditation & Mindfulness, Resources, Writing & Art*. Retrieved from <http://integratvecancer.org/calming-down-with-coloring-books-for-grown-ups-a-new-trend-in-stress-relief/>

Burn, S. (May 2015). Worry about Mammograms, Callbacks and Biopsies. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/presence-mind/201505/worry-about-mammograms-callbacks-and-biopsies>

BREAKING NEWS

BARE NEWS: WHAT YOU NEED TO KNOW!

Greg Laukhuf ND, RN, CRN, RN-BC, NE-BC

[Why health care costs are making consumers more afraid of medical bills than an actual illness](#)

As health care costs keep rising, increasingly people are skipping physician visits. It's not fear of doctors driving this trend but rather a fear of the bills that follow. Higher deductibles and out-of-network fees are just some of the costs that can hit the patient. According to a recent national poll, 44 percent of Americans said they didn't go to the doctor when they were sick or injured because of monetary concerns. In addition, 40 percent said they skipped a recommended medical test or treatment for the same reason. The study found most people who are delaying or skipping care have health insurance. A staggering 86 percent of those surveyed said they're covered either through their employer, have insurance they purchased directly, or through government programs like Medicare and Medicaid. "There have been so many changes in the health care landscape in the United States that this news is not entirely surprising," Cleveland Clinic president and CEO Tom Mihaljevic told CNBC's "On the Money" in a recent interview. Mihaljevic warned that skipping visits or treatment can be counterproductive. "One of most important consequences of skipping medical care or delaying care ultimately impacts the quality of care, impacts the outcome," he said. "Untimely visits or delay of visits to the physician ultimately leads to the increased cost of care."

[Short-term use of IV devices is common -- and risky -- study shows](#)

Many hospital patients get medicine or nutrition delivered through a PICC. It's become the go-to device for intravenous care. Intravenous devices known as PICCs should be reserved for long-term use, but a new study shows 1 in 4 are used for 5 days or less. However, a new study finds that one in every four PICC inserted, do not justify the risks insertion poses. And nearly one in ten of those patients suffered a complication linked to the device including a blocked line, an infection, a blood clot or another complication linked to the device.

The study, published in the February issue of the Journal of Hospital Medicine, is based on data analysis of records from 15,397 PICC placements over a two-year period from 2014 to 2016. It highlights the need to reduce short-term use of PICCs and help medical care teams understand current practice and consider other alternatives for short-term IV access.

"When PICCs first came out, they became an 'easy button' for vascular access, and the safety issues weren't recognized," says David Paje, M.D., M.P.H., the University of Michigan hospitalist who led the research team. "Now the dynamics have changed, and we need to be more thoughtful with their use."

[Some acutely ill patients are getting treated at home instead.](#)

Phyllis Petruzzelli spent the week before Christmas struggling to breathe. When she went to the emergency department on Dec. 26, the doctor at Brigham and Women's Faulkner Hospital near her home in Boston said she had pneumonia and needed hospitalization. Then the doctor proposed instead of being admitted to the hospital, she could go back home and let the hospital visit her. As a "hospital-at-home" patient, she learned, doctors and nurses would come to her home twice a day and perform needed tests or bloodwork. A wireless device affixed to her skin to track her vital signs and send the hospital. If she had any questions, she could talk via video chat anytime with a nurse or doctor. Petruzzelli agreed. That afternoon, she arrived home in a hospital vehicle. A doctor and nurse were waiting at the front door. She settled on the couch in the living room, with her husband, Augie, and dog, Max, nearby. The doctor and nurse checked her IV, attached the monitoring patch to her chest, and left. ... After three days, she was "discharged" from her hospital-at-home stay. "I'd do it again in a heartbeat," Petruzzelli said. Brigham Health is one of a slowly growing number of health systems that encourage selected acutely ill emergency department patients to opt for hospital-level care at home. This approach is quite common in Australia, Britain and Canada, but it has faced an uphill battle in the United States. A key obstacle is getting health insurers to pay for it.

[Walmart reportedly in early-stage talks to buy Humana: 5 things to know](#)

Retail giant Walmart is in preliminary talks with health insurer Humana about developing a closer partnership. Here are five things to know. (1) The two companies are discussing a variety of options. If they do reach an agreement, it would be Walmart's largest deal ever. Humana's current market value is about \$37 billion. (2) If the potential deal closes, Walmart would be one of the largest health

insurers in the country. (3) The talks between Walmart and Humana come amid a flurry of deals involving healthcare, including CVS Health's proposed acquisition of Aetna for \$69 billion and Cigna's proposed acquisition of Express Scripts for \$54 billion. (4) Humana shares jumped 10 percent in after-hours trading March 29 while shares of Walmart dropped 1 percent. (5) Walmart is a major drugstore operator in addition to being the world's largest retailer and has a current market value of \$260 billion.

[Amazon, Berkshire Hathaway and JP Morgan Chase join forces to tackle employees' health-care costs](#)

Three major employers, Amazon, Berkshire Hathaway and JP Morgan Chase, announced Tuesday they were partnering to create an independent company aimed at reining in health-care costs. There were almost no details available about how the company would function — whether it would seek to integrate into existing markets or try to disrupt the complicated fabric of American health care. But major health company stock prices tumbled on the news, and the announcement stirred excitement and concern among industry leaders that the three companies could bring their clout to containing costs in the massive employer-sponsored health insurance market, which provides care to approximately 160 million Americans...

[Amazon quietly launches exclusive OTC product line: 7 things to know](#)

Amazon launched Basic Care, a line of 60 over-the-counter healthcare products, - a move that could place more pressure on pharmacy retail chains according to CNBC. The following are the top items to know.

(1) The products are the Basic Care line. These products range from ibuprofen to hair regrowth treatment produced by Perrigo.

(2) Although Amazon doesn't own the 60 OTC products included in the exclusive Basic Care line, it does put the e-commerce giant in a position to pressure store-brand profit margins.

(3) Amazon already sells OTC medications such as Advil, Mucinex, Nicorette and products from Perrigo's generic brand, Good Sense, which are all subject to price fluctuations from competitors. However, its exclusive Basic Care line would not be subject to the same fluctuations, according to the report.

(4) Private-label brands like Basic Care offer higher margins than national brands, and stores can keep them priced like the name brand as long as they are cheaper.

(5) According to CNBC, a 500-pill bottle of 200 mg Basic Care ibuprofen costs \$6.98, where the same bottle costs an average of \$12.41 across Walmart, CVS Health, Walgreens and Rite Aid. An Amazon spokesperson declined to disclose the margins for Basic Care products but said the company "works hard to offer low prices across its entire selection."

(6) However, just because Amazon can offer a low price on OTC products doesn't mean other pharmacy retailers are destined for failure. Often, consumers do not have a stock of cold medicines, instead waiting to purchase the medications and running to a nearby store when they need them.

(7) An Amazon spokesperson told CNBC that Basic Care will not be a pathway to sell prescription drugs. However, the e-commerce giant has expressed interest in entering the prescription drug space throughout the past few months. Late last year, Amazon participated in exploratory talks with generic drug makers and obtained pharmacy licenses in more than 10 states.

[Moody's: Nonprofit hospitals face volume, margin declines as insurers acquire physicians](#)

As payers swallow up more physician groups and non-acute-care services, nonprofit hospitals will see greater pressure on their volumes and margins, according to Moody's Investors Service. Moody's predicts insurers will be able to provide preventive, outpatient and post-acute care to their members through acquired providers at a lower cost than hospitals. Due to this, insurers will begin splitting out hospitals and select services from their contracts, leaving nonprofit hospitals with fewer patients and less revenue. "Insurers flexing their negotiating power by offering lower rate increases will likely result in more standoffs and terminations of contracts between insurers and hospitals," according to Diana Lee, a Moody's vice president. "To regain leverage, we expect hospitals to continue [merger and acquisition] and consolidation."

[Black Lung Disease Comes Storming Back in Coal Country](#)

Investigators have identified the largest cluster of advanced black lung cases ever recorded. More than 400 coal miners in southwestern Virginia were found to have black lung disease, an extreme form characterized by dense masses of scar tissue in the lungs. The cluster was identified following an investigation by National Public Radio. It highlights a growing body of evidence that a new epidemic is emerging in Appalachia. The severity of the disease among miners at the Virginia clinics "knocked us back on our heels," said David J. Blackley, an epidemiologist at the National Institute for Occupational Safety and Health. He shared, "It was equally troubling that nearly a quarter of the miners with complicated black lung disease had been on the job fewer than 20 years..."

[10.5 T MRI does first human scan](#)

Researchers at the University of Minnesota's Center for Magnetic Resonance Research (CMRR) performed the first whole-body 10.5-tesla MRI scans on humans. The magnet was built in the U.K. and shipped across the Atlantic Ocean to Duluth, MN. The project was launched in 2008 with the aid of the U.S. National Institutes of Health (NIH).

The scanner, a Magnetom 10.5T by Siemens Healthineers, is able to image the entire body with its main focus on the brain. In addition to an initial NIH grant, the CMRR researchers also received a second grant from the NIH Brain Initiative to develop the next generation of brain imaging techniques with the scanner. With this level of scanning, researchers can contribute to the development of treatment options for a range of diseases, including heart disease, diabetes, and cancer.

"This is an instrument with which we want to push the boundaries of imaging brain function," said Kamil Ugurbil, PhD, director of the CMRR and a professor of medicine, neuroscience, and radiology at the university's medical school.



IMAGING REVIEW COURSE NEWS

Bruce Boulter, Executive Director

Exciting news was announced at this year's annual convention by the RNCB. Starting with the upcoming October CRN exams, for the first time it will be now be offered as a computerized test and not pencil and paper. We appreciate everyone's patience as we have worked with them to make this happen.

To help you prepare for the October exams, ARIN has many Imaging Review Courses scheduled in different parts of the country. Starting with the August 4/5 course being hosted by the Brigham and Women's hospital coupled with Massachusetts General Hospital in Boston. The course will take place at Brigham and Women's.

Later that month we move up the east coast to Rochester, NY Imaging Sciences at UR Medicine will be hosts for a course on the 25/26 of August, followed by a drive back down the coast to Baltimore, MD. Our friends at the Johns Hopkins Hospital are once again hosting their course on September 22/23.

Finally, we head west where the ARIN Northwest Chapter will host a course on November 3/4 to held at Swedish Hospital in Seattle, WA. We are very excited to be offering all these courses for our wonderful membership.

In addition to all this globetrotting by our amazing master faculty, they will be presenting a "virtual course" to Cleveland Clinic Abu Dhabi in July. This is ARIN's second virtual course to the Middle East. We appreciate our members in the far reaches of the world demonstrating that ARIN has truly become an international association.

A big thank you to Kathy Scheffer, Ellen Arslan, Kristina Hoerl, Lauren Miller, and Pauline Lentowski for all their hard work for many years. This is also Kathy Scheffer's last year of teaching as she has retired. Kathy has donated countless hours of service on behalf of ARIN. If your hospital or chapter is interested in hosting an imaging review course, please contact Bruce Boulter at bruce.boulter@arinursing.org for more information.

OHIO RADIOLOGICAL NURSES ASSOCIATION (ORNA) SPRING EDUCATION



The mind is not a vessel to be filled, but a fire to be ignited.

– Plutarch



Patricia accepts her award from President Cheryl

The snow is receding, potholes appearing, and the flowers are coming up. This signals the annual ORNA Spring Education Event. April 21 was the date chosen for the event this year with the theme of “The Broadening Scope of Interventional Radiology”. The

organization had an exciting day lined up with 4.25 contact hours from a variety of speakers across the interventional radiology spectrum. Highlights for the day included:

7:00am to 7:45am - Registration / Continental breakfast - Rainbow Community Room

7:45am to 8:00am - Welcome and introduction of speakers - John Shrewsbury/ORNA President - Rainbow Amphitheater

8:00am to 9:00am - George Gordon and Michael Russell- Rainbow Amphitheater

Why Y90 and Ablations

9:00am to 10:00am - Dr. Vanessa Ho - Rainbow Amphitheater

Trauma Radiology: A Surgeon’s Perspective

10:00am to 10:30pm - Break and Vendor Visitation - Rainbow Community Room

10:30pm to 11:30pm - Dr. Sidhartha Tavri - Rainbow Amphitheater
Management of Venous thromboembolism

11:30pm-12:30pm - Dr. Mohammed Al-Natour - Rainbow Amphitheater

Endovascular Management of Mesenteric Ischemia

12:30 - 12:45 - Conclusion - Rainbow Amphitheater



After a great continental breakfast and time to catch up with old acquaintances, the day commenced with George Gordon and Michael Russell, presenting “Why Y90 and Ablations?” This riveting talk shared the how and why



Medical Center, shared a case study examining the surgical assessment of an MVA case and how it changed with each successive radiological exam. She detailed Radiology can help the trauma surgeon in their diagnosis of the patient’s condition. Her talk concluded with many patient centered ideas for which Radiology can partner with trauma to drive positive patient outcomes.

of Y-90 through case studies. In addition, they spoke on the differences of SIR spheres and Theraspheres and patient impact. Time was allowed at the end for audience questions.

The day continued with a look the intersection of IR and trauma surgery. Dr. Vanessa Ho, trauma surgeon from Metro Health



Dr. Mohammed Al-Natour concluded our educational segment of the day with “Endovascular Management of Mesenteric Ischemia.” The role of IR in diagnosing and treating this disease anomaly was shared.

The third speaker of the day was Dr. Sidhartha Tavri, discussing Management of Venous Thromboembolism. Dr. Tavri spoke on thrombogenesis and the role in IR in diagnosing the condition. The talk concluded with gold standard interventions to treat clots and improve patient outcomes.



President John Shrewsbury extends the business invitation and close the day

celebrate Radiology technology week and will be held on the campus of University Hospitals Cleveland.

The day was ended with a business meeting in the Corner Alley where members could meet, have a hamburger, and a bowl a couple games of Nine Pin. Our next event will be the Fall Education Seminar, November 3. This is the free all-day event to

ARIN EXTENDS A WARM WELCOME TO OUR NEW MEMBERS!

First Name	Last Name	State	Country
Gloria	Devia	CA	USA
Christina	Unverricht	AB	Canada
Sarah	Deidrich	LA	USA
Bonnie	Barnard	TX	USA
Cynthia	Scheuher	MI	USA
Sherri	Buterbaugh	PA	USA
Chaley	Pettit	TX	USA
Catiussi	Hoffmann	CA	USA
Brooke	Zacheis	NJ	USA
Kari	Begin	ME	USA
Amy	Reed	AK	USA
Kathryn	Ragel	MA	USA
Ann	McGrath	NY	USA
Jennifer	Schmidt	MO	USA
Casey Jo	McDermitt	PA	USA
Shannon	Ziriada	MI	USA
Melissa	Santiago	VA	USA
Andrea	Hessek	TX	USA
Minnie	Agtuca	VA	USA

First Name	Last Name	State	Country
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Nancy	Nussbaum	PA	USA
Sara	DePoy	MI	USA
Shannon	Coleman	BC	Canada
Michele	Michalak	NY	USA
Frances	Abbott	NY	USA
Shay	Dupras	AZ	USA
Ruth	Semere	CA	USA
Terri	Swanson	NH	USA
Cynthia	Eastwick	TX	USA
Deanne	Newhalfen	WY	USA
Jackie	Holladay	VA	USA
Juli	Germany	CO	USA
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A Life-Changing Career



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