Association of Vascular and Interventional Radiographers

INTERVENTIONAL INFORMER

Summer 2016

PRESIDENT'S MESSAGE

David Nicholson, RT (R) (CV)

In my 15 years as an IR tech, there have been many times I have been presented the following questions, both about my profession and our organization. What is an IR tech?? What is the AVIR? How do the two of them relate, and why do they need each other?

An interventional technologist is a technologist unlike any other technologist in the department of radiology. Where technologists in other areas are very knowledgeable, highly advanced, and very specialized, they have a different way of thinking and functioning within the role they provide patient care. More often than not, I find those technologists are so specialized and are not necessarily given the opportunity to understand or learn the other modalities.

An interventional technologist must have an understanding of other modalities. It is helpful, if not imperative to be familiar with Nuclear Imaging, CT, MRI, diagnostic, radiation therapy. In some areas, an interventional technologist should have a knowledge of transplant surgery, specifically anastomotic methodologies, and vascular surgery.

The AVIR is an organiztion that allows us an opportunity to be educated clinically, network, both through meetings and social media, as well as be educated academically. The Board of Directors has worked very hard over the last 5-6 years to mold the AVIR into a product we can all be proud of, and something we can all stand behind. Much like us, the technologists, the AVIR offers a very diverse area of education. Topics and events such as cancer treatments, aortic interventions, venous disease, articles, cases of the month, Medlantis online education module, Annual Meeting, Regional/ Chapter meetings, as well as the VI Workshop.

It is imperative as an IR tech to have an organization that is as specialized and diverse as we are. We are always looking to improve, and looking for more member involvement and input. I am looking forward to the coming years, and hope to have an opportunity to talk to you in the future.

Inside Summer 2016 I David S. Douthett, RT(R)(CV), Editor

LETTER FROM THE EDUCATIONAL DIRECTOR

Alisha Hawrylack, RT(R)(VI)
Vice President, AVIR

One year ago my husband and I began the exciting, albeit somewhat daunting task, of finding a new home for our growing family.

At the time of our search we had lived in our current home for 5 years, during which time we developed a wish-list of all the things our next house would have. Some things were born of want, others of need, but all were born of experience. After a few months of fruitless searching, we decided that if we were going to live in a home that was perfect for our family, we would have to build it.

Sharing that decision with our friends and family brought an onslaught of "have you lost your mind" comments. Horror stories of inexperienced contractors and crooks were told at a rate that convinced me that everyone I knew must have used the same inexperienced contractor and crook. Unfazed by their stories as only someone who has never built a house can be, we proceeded. We purchased land, settled on a house plan, and then I started furiously looking at images of back porches and cabinet colors.

As our home progressed I quickly learned that just like everything in life, there is more to building than the romanticized portions. No one seemed interested in my color scheme; everyone seemed interested in what sort of septic system I wanted, and where I wanted my hot water to tank to sit. Every question I was asked I countered with "Does it matter?" Apparently, it does.

As my contractor patiently explained each step to me, from the concrete that formed the foundation to the reason the roof would be pitched at the angle it was, I began realizing why and how everything mattered. Understanding every step, every tool, every corner, bolt and board has enabled my contractor to build the perfect home for my family. That lack of concern and understanding is also what led to others having less than ideal experiences.

I enrolled in a VI training program in 2007 with grandiose visions of how I was going to impact patient care. I was very excited to learn the steps of the procedures, to understand pathologies, and to assist in the selection of inventory. My first day of clinic, I was assigned to a patient undergoing an EVAR. Learning about the etiology of the aneurysm, the endografts, and the anatomy involved was fascinating. I tried to absorb everything I could, knowing that the technologist I was with would certainly quiz me later.

"Later" came in one week. I was setting up a procedure room for a PICC placement when the technologist casually walked in and said "I have some questions about that EVAR we did together." Finally, I thought, more than ready and excited to demonstrate everything I'd learned.

"Tell me about the needle we used to get access." What.

"Tell me about the catheters we used, the wires, the reason we chose a percutaneous access, why the arterial line was in the right arm."

The questions came at an alarming rate. I was amazed at the number of questions someone could ask about an EVAR, and never once use the word "aneurysm."

It was that day that I began to understand the difference between wire designs; I began to understand catheter selection, reinforced sheaths, the subtle and not so subtle differences between metals, balloon designs, and access needles; the tools, bolts, and boards.

The continued growth of IR requires innovation that is grounded in understanding. To be an asset in "building" the perfect outcome for our patients, we must understand the tools of our trade, we must understand the whys, and the how's; the inventory, the anatomy, and the procedures.

The AVIR is continuing to strive to create educational opportunities that promote this understanding. The articles available on our website have been hand selected by our educational committee, our VI Workshop is designed to increase our understanding of fundamentals, and our partnership with Medlantis has provided our membership access to webinars given by thought leaders in our field.

I encourage you to utilize the AVIR and all it has to offer to grow your educational toolbox.

Happy Building.
Alisha Hawrylack, RT(R)(VI)
Vice President, AVIR

LETTER FROM SECRETARY/TREASURER

Stefanie Rockwood
Secretary/Treasurer

AVIR has come a long way over the years. This organization became incorporated in December of 1988 and had its first annual meeting in conjunction with SCVIR and ARNA in Washington, DC in 1989. Since day one our mission has been to promote professional growth throughout the community. As board members we made a pledge to make education our primary focus and responsibility. AVIR chapters were created throughout the country to continue to encourage active participation by members. These chapters are what provides strength and future stability of AVIR by implementing educational needs between annual meetings.

Membership allows you to obtain continuing educational credits through our app and website. Our most recent collaboration has been with Medlantis to offer our members a coupon each month for 1 CE credit. Through the education portal members have access to a wide variety of tools to meet their needs. Members are also offered a discounted rate to the annual meeting, if you have not had the opportunity to visit one, make it a goal to get there. There are countless networking opportunities and a massive exposure to how the rest of the world approaches Interventional Radiology. Working in this dynamic field we are constantly evolving. Attending annual meetings will give you fresh insight to the work environment with new ideas and techniques.

There are different levels of membership to meet the needs of all healthcare professionals, please encourage your fellow co-workers to join AVIR.

Get the most of your membership by taking advantage of all the benefits we offer, and current members don't forget to renew so you never miss out on everything AVIR has to offer!

Warm Regards,
Stefanie Rockwood
Secretary/Treasurer

WE COULDN'T DO IT WITHOUT OUR CORPORATE PARTNERS!

Dana Kanfoush
Corporate Liaison

Wow!! Vancouver was another amazing conference. Incredible speakers, fascinating topics, I could go on and on. However, none of it would have been possible without the support of our wonderful corporate partners so please join me in offering a big THANK YOU to the following companies: Bard Peripheral Vascular, Cook Medical, WL Gore & Associates, Medtronic, Mobile Aspects, Cordis/ Cardinal Health, Boston Scientific, and Penumbra. We especially want to thank our first-time sponsors: BioDerm, UreSil, DFINE, and Medcomp. Without these strong partnerships year after year, our annual national meetings would not be possible. Through their generous funding, technologists here in the United States and abroad are given the opportunity to further their education in an ever-changing and growing field. Be sure to support the companies who support our association! The strategic partnerships with these companies are a big reason that AVIR is strong and growing.

VANCOUVER MEETING RECAP

By Kristen Welch, RT (R)(VI)

It's safe to say that our 26th annual meeting in Vancouver lived up to it's expectations! Our conference was held in conjunction with the the Society of Interventional Radiology's 41st Annual Scientific Meeting in Vancouver, British Columbia April 2- 7th. Vancouver provided a breathtaking backdrop for our meeting! The Vancouver Convention Centre was located on the waterfront of Vancouver Harbour and overlooked the mountains for a beautiful skyline.

The first day of our conference was kicked off with our combined meeting day with our nursing colleagues from the Association for Radiologic and Imaging Nursing! The focus of this day was collaboration within the angio suite between Interventional Radiology's multifaceted teams. We started out our morning with our annual Shari Ulman Gold Medal Lecture, that was given by Dr. Michael Dake. Dr. Dake's key message was innovation in IR. Some other topics included: Universal Protocol, teamwork within the angio suite with ischemic stroke patients, and radiation protection! We were also very honored to have Dr. Stephen Ferrara speak to us. I don't think there was a dry eye in the room after his provoking presentation on interventional in an austere environment. Sunday evening, we joined our nursing colleagues along with some of our valued sponsors and speakers at our soiree. This was a great opportunity to network with other professionals in our unique field!

Our 2016 Annual Meeting Chair, Amanda Popovitch brought us an exciting line up of topics and presenters for our Vancouver meeting! A few highlights included presentations on: Alternative Access in complex interventional procedures, Irreversible Electroporation, Interventional Oncology, and Pulmonary Interventions. We had many returning AVIR favorite presenters such as: Drs Wael Saad, Janice Newsome, Bulent Arslan, Constantino Pena, and who could ever forget the charismatic Dr. Bob Dixon!? We had the honor of having Dr. David Kumpe speak to us on the endovascular treatment of stroke. Dr. Kumpe has been acknowledged as a pioneer of peripheral and neurointerventional endovascular treatment. He is responsible for some of the first scientific papers written on balloon angioplasty. Such a great lesson from a world expert!

2016 was a year of many firsts for the AVIR at our meeting! For the first time, the AVIR hosted poster presentations. Members submitted abstracts that were then accepted and presented as posters to AVIR attendees. Our posters were very well received and will continue at our 2017 meeting in Washington D.C.! We also had the privilege of participating in SIR's hands on workshops that were held in the exhibit hall. This year's workshops focused on radial access, aortic endografts, and stent devices.

We finished off our meeting on Wednesday with our annual VI Review that was held by our Vice President, Alisha Hawrylack. Alisha hosted a very comprehensive review that included an in depth look at vascular anatomy and pathology, routine and complex procedures, patient care, and a mock VI exam. I hope everyone in attendance enjoyed their meeting experience. Your continued support and dedication to Interventional Radiology is what keeps this organization alive. I look forward to seeing you in D.C. for 2017! Thank you Amanda for organizing an exceptional conference!

AVIR present and past presidents

Amanda Popovitch, Dr. David Kumpe, Kristen Welch, Dana Kanfoush

Dr. David Kumpe

AVIR HONORS IN VANCOUVER!

By Kristen Welch, RT (R)(VI)

Each year the AVIR recognizes leaders within our ever growing field of interventional Radiology. Two of these awards were presented to their respected recipients at our annual meeting; The Shari Ulman Gold Medal Lecture and the AVIR Award of Excellence which recognize distinguished and extraordinary service to Interventional Radiology.

2016 Shari Ulman Gold Medal Lecture Award

Michael Dake, MD, FSIR, FCIRSE
Stanford University

The AVIR Gold Medal Lecture Award is named after one of our organization's founding members, Shari Ulman. Without Shari's dedication, countless efforts and commitment, this organization would not be in it's good standing we are today. In 2008 Shari lost a two-decade long fight with breast cancer. Each year we recognize a physician with outstanding contributions to the AVIR and Interventional Radiology in her name. This year, Dr. Michael Dake was the recipient of this noble award.

Dr. Michael Dake completed is medical education and residency at Baylor College of Medicine. He then completed pulmonary fellowship and his training in vascular and interventional radiology at the University of California. Dr. Dake has an extensive background in academia and has held many positions throughout his tenure. He worked with Dr. Barry Katzen at Miami Vascular Institute during it's infancy. Dr. Dake joined Stanford University in 1990 as Section Chief of Cardiovascular and Interventional Radiology. During this time, he focused his research on aortic stent grafts. His scientific contributions revolutionized the way thoracic aortic aneurysms and dissections are treated and managed today. Dr. Dake served as the chair of Radiology and the Harrison Distinguished Medical Teaching Professor of Radiology at the University of Virginia. During his time at UVA, he led the establishing of their research facility; the Sheridan G. Snyder Translational Research Building at the Fontaine Research Park.

Throughout his career, Dr. Dake has delivered more than 1.600 presentations, authored 101 book chapters, 250 peer reviewed articles, and holds 25 U.S. patents. Dr. Dake has received innumerous honors. In 2002 he was nominated for a Nobel Prize in Physiology and Medicine. In 2007 he delivered the Dr. Charles T. Dotter Lecture at SIR's 32nd Annual Scientific Meeting, and also received the foundation's Leaders in Innovation Award in 2012. Dr. Dake is a three-time recipient of the Gary J. Becker Young Investigator Award which is given by the Society of Interventional Radiology for his achievements in research. These are just a few to name. Please join us in congratulating Dr. Dake on this prestigious award.

2016 Award of Excellence

Rita Howard, RT(R)(CV)
Riverside Regional Medical Center

The AVIR Award of Excellence is given each year in efforts to recognize an outstanding technologist; a technologist that consistently goes the extra mile. This year, our recipient was Rita Howard. Rita was presented this distinguished award in April at our annual meeting in Vancouver.

Rita has been a radiologic technologist for 46 years. She currently is employed as an interventional technologist at Riverside Regional Medical Center in Newport News, Virginia where she has worked for the past 37 years. Rita was recognized by her peers for her unparalleled patient care, dignified approach to teamwork, and described as a true pillar to Interventional Radiology.

Rita is an advocate for education, organizing monthly educational sessions for her colleagues. She was also one of the original founders of her local chapter, the Virginia AVIR where she still plays an integral role. Outside of work, Rita volunteers for The American Heart Association and Legs for Life, the longest running national vascular disease screening program in the United States. Rita works very intimately with her church and the community on spreading awareness about heart and vascular disease.

Please join us in congratulating Rita on this exceptional achievement. She is a true advocate to Interventional Radiology, and we are honored to name her as our 2016 Award of Excellence recipient.

ARRT UPDATES JULY 2016

Senator Boozman and Casey Introduce Bipartisan Legislation Requiring Medicare to Ensure Access to Radiologist Assistants

(May 18, 2016) On May 17, Senators John Boozman (R-AR) and Bob Casey (D-PA) announced introduction of bipartisan legislation to recognize the Radiologist Assistant (RA). The bill, S.2940, is companion legislation to H.R. 4614 introduced by Congressmen Pete Olson (R-TX); Mike Doyle (D-PA); Dave Reichert (R-WA) and Bill Pascrell (D-NJ). The House bill has 25 bipartisan cosponsors. Medicare is trying to identify value-based, efficient solutions to improve patient outcomes. The RA role is an example of such a solution. RAs extend the reach of medical staff, enabling on-site radiologists to focus on the services that only radiologists can provide. This bill preserves medical education programs, jobs, and patient access to medical imaging services, especially in rural areas. These patient access challenges are certain to worsen as the number of Medicare beneficiaries grows.

Proposed Changes to Rules and Regulations

Two additional changes to ARRT governing documents are being proposed by the ARRT Board of Trustees, and they are interested in your input. These changes go beyond those earlier announced for the Standards of Ethics and the Continuing Education Requirements.

The changes, which are detailed in a track-changes version of the Rules and Regulations, include a procedural clarification for the Continuing Qualifications Requirements, or CQR, and an updating of how ARRT may seek public comment on proposed changes to any of its governing documents:

- Section 2.05: A sentence is added to clarify that if certification and registration is held in multiple disciplines, CQR must be completed for each discipline earned on or after January 1, 2011.
- Article II, Section 2.03(o): Temporarily reopen the eligibility pathway that grants radiology practitioner assistants certified by the Certification Board for Radiology Practitioner Assistants eligibility to participate in ARRT's Registered Radiologist Assistant examination—provided that all other professional education eligibility requirements are met. If you've graduated from an RPA educational program, and you haven't previously applied to ARRT for certification and registration as an R.R.A., you may be eligible to do so through Dec. 31, 2020.

If you applied to ARRT in the past, you aren't eligible for this reopened pathway unless you re-establish educational eligibility by completing an RA or advanced placement program

- Sec. 8: Revise requirements so that education preparation—not the resulting credential—will earn continuing education (CE) credits. Beginning Jan. 1, 2018, earning an additional credential won't earn credits for biennial CE requirements. The educational activities you complete to qualify for the new credential, however, may count toward your biennial continuing education.
- Sec. 13: Allow R.T.s to claim credit for repeating a CE activity in subsequent biennia, but not during a single biennium. If you complete a particular CE activity, you may report it for credit more than once during your career—but you may earn credit for itonly once in a single biennium.
- Section 11.02 (c): ARRT regularly seeks comment on all substantive changes that are proposed for the governing documents. In order to accommodate updated communication media, the language that specified how such proposed rule changes could be circulated for public comment is proposed for change in order to permit flexibility in the best appropriate manner of communicating those proposals.

Additional editorial changes, also highlighted in the track-changes version of the Rules and Regulations, are proposed to reflect updated terminology.

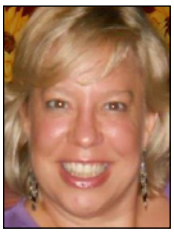
ARRT First to Earn Accreditation for a CT Certification and Registration Program

(March 28, 2016) — ARRT has become the first organization to have a Computed Tomography (CT) certification and registration program earn accreditation from the National Commission for Certifying Agencies (NCCA). NCCA accreditation serves as an objective measure of a certification program's quality. The CT accreditation is ARRT's sixth from the NCCA.

ARRT administered its first CT exam in 1995. Currently, the organization has more than 61,000 certified and registered CT technologists. Candidates who meet ARRT's CT clinical requirements must demonstrate the ability to perform diagnostic CTs for a wide range of radiographic studies, with and without intravenous contrast.

CALL FOR POSTERS!

Lora Cheek, RN, CNRN
Associate Representative



2017 AVIR Annual Scientific Meeting in DC

Is there new science, an innovative procedure, evidence-based project, clinical initiative or best practice program you are passionate about and would like to share with others? Have you considered the possibility of presenting a poster at our AVIR annual meeting in Washington DC? Poster presentations are an excellent method to share information of value with others in your profession, offer a unique learning experience and are a super opportunity to build onto your resume/CV. Your work may be unique to you and your workplace and of great interest to others in your profession. Poster presentations allow the presenter to interact one on one with people interested in your topic and permit the presenter to get immediate feedback from members of the audience. Why not make 2017 the year you participate in the rewarding and uplifting experience of presenting a poster at the AVIR annual meeting. This is a Call for Abstracts for AVIR annual conference in Washington DC March 4th -9th 2017. Your abstract should contain a brief summary giving an overview of the type of work, science or project you are presenting, explain the value of the information and demonstrate your knowledge of the subject matter. This can be done in a short 250-400 word composition with an introductory paragraph stating the background or purpose of the work you are presenting, a body paragraph detailing the methods for your topic and a results paragraph discussing the data analyzed. Finish your composition with a conclusion which explains the reasons for the choice of topic, what was learned from the research/project and what conclusions were made based upon the results. Don't want to go it alone, consider co-authorship with a fellow Technologist or physician or nurse collaborator. Co-authorship is less demanding on any one individual and may produce a better-rounded piece of work. AVIR would love to support sharing the amazing work you all do every day with your fellow technologists. Please consider submitting an abstract for our 2017 annual meeting in Washington DC. You will find reproductions of some of the 2016 Poster presentation abstracts within this newsletter for your perusal.

THE AVIR TAKES D.C.!

By Kristen Welch, RT (R)(VI)

The AVIR's board of directors is well underway in the planning of our 2017 annual meeting in Washington D.C.! What better of a place to gather than our nation's capitol?! In May, myself, David Nicholson (AVIR president), Alisha Hawrylack (AVIR vice president), Dana Kanfoush (AVIR corporate liaison), Mary Sousa (ARIN past president), and DeAnn Mcnamara (ARIN program chair) had the opportunity to travel to D.C. with members of SIR's executive council to visit our 2017 venue. Our annual 27th annual meeting will be held between the Walter E. Washington Convention Center and the adjacent Marriot Marquis Hotel. The convention center, in the heart of the city was extraordinary, and I am confident it will hold an unforgettable meeting for us in 2017!

In addition to venue space, we are planning our agenda for the D.C.. We surveyed attendees from our 2016 meeting and have taken a lot of time to review these results. We heard your thoughts, and are assured to deliver in 2017. I am very excited about what we have in store for our attendees! For the first time, we will present awards for our scientific research and educational poster abstracts submitted. Returning next year, the AVIR will be participating in hands on workshops and simulators provided by SIR. These workshops are an invaluable learning experience and vital to our growth as technologist to stay up to date on skill.

We are spicing things up with our agenda, and will be holding many panel discussions to engage our audience. Some exciting topics we have planned are: Establishing a Pulmonary Embolism Response Team, Interventions in Transplant Organs, Interventional Oncology Around the World, A Multidisciplinary Approach to Acute Ischemic Stroke, The Best Case of My Career Panel: A Sit Down with the Experts, and Research within Interventional Radiology. We will be debuting a brand new set of discussions I am extremely excited about; Breakfast with Leadership. These sessions will highlight different career options available to technologists. If you didn't get a chance to make it to our meeting in Vancouver, we hope to see you in Washington D.C. for our annual meeting!

Meet Our Board of Directors for the 2017 Annual Meeting:

AVIR

ISET Endovascular Therapy

AVIR Active Members, you can attend ISET this year with some great discounts specifically for you.

Stay tuned to the Affiliate Meetings section of our website for details:

1. $75 fee to attend the Saturday 8 AM – 4:30 PM Focused Symposium for Nurses & Techs only
2. Registration for the entire CIO/ISET conference, including the Focused Symposium for Nurses & Techs, at a discount of 25% off of our allied rates. Those rates are as follow…
   1. Early Bird Rate, before October 28, 2016 – 336.75
   2. Advanced Rate, before January 13, 2017 – 411.75
   3. Onsite Rate, after January 13, 2017 – 486.75

Cost Effective Management of Short-Dated Inventory in Interventional Radiology

D. Barnes, BS, RT(R) CV[1], K. Scheuerlein, BS, RT(R)VI[1], K. Welch, RT(R)VI[1], E. Vande Slunt, BS, RT(R)VI[1], N. Anderson, RT(R)VI[1], M. Weithaus, RT(R)VI[1], A. Strycker, BS, RT(R)VI[1], J. Aguilar, BSN, RN, RCIS[1], Z. Timm, MA[1], M. Wilfert, RT(R)VI[1], S. Jakubowski, BS, RT(R)VI[1], CT, K. Bonlender, RT(R)VI[1], M. Proulx, RT(R)VI[1], A. Roessler, RT(R)VI[1], H. Dembny, RT(R)CV[1], E. Rodriguez, RT(R)VI[1], S.B. White, MD, MS[2]

[1] Froedtert Memorial Lutheran Hospital , Milwaukee, WI [2] Medical College of Wisconsin, Department of Radiology, Division of Vascular & Interventional Radiology, Milwaukee, WI

Introduction

Interventional Radiology (IR) is a dynamic, fast-paced specialty where complex procedures are being developed daily. The inventory necessary to perform these procedures is just as dynamic, as it constantly changes and requires a large variety of equipment to be kept in stock. While procedures and inventory needs change, products can expire without vigilant watch. The purpose of this study was to develop a program to decrease the cost of expired products in IR.

Materials and Methods

From February 2013 – February 2016, inventory within one year of expiration was labeled with a bright colored sticker, indicating to the technologist and physician which equipment should be used first. Any person using a stickered inventory item for a procedure was given a $5 meal card redeemable at the hospital cafeteria or gift shop. In addition, a report was generated via a web based inventory management system (SpaceTRAX®, Lincoln, NE) detailing the inventory that would expire at the end of the month. All identified products were pulled from the shelves and placed in clear view for staff to see for 30 days prior to expiration. The cost of the expired inventory was tracked monthly, as was the cost of the incentive program. Comparison was made to cost incurred of expired products from January 2013 – February 2016.

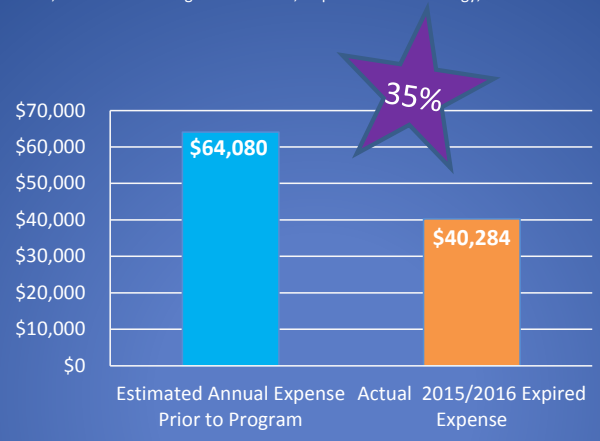


Figure 1. One Year Estimated Savings. Estimated annual expense represents the total of expired inventory before the program was initiated. Actual expired expense demonstrates the decline in expired inventory after the program was initiated. A35% cost savings was found when comparing cost of expired product prior to the program and after.

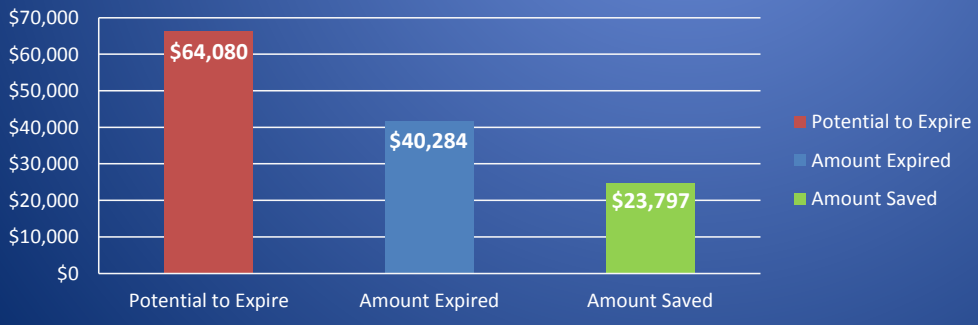


Figure 2. One Year Savings. Inventory expired prior to meal card program was $64,080 . Actual expired inventory documented between March 1st, 2015 – February 29th, 2016 was $40,283. Representing inventory savings in one year due to meal card program $23,797.

Results

From January 1st, 2013 – January 31st, 2013, the cost of expired products was $5,340. Comparative assessment was made of the most recent 12 months of data. From March 1st, 2015 – February 29th, 2016 the mean cost of expired products decreased to $3,357 per month, representing a mean savings after implementation of the program of $1,983 per month (**Fig 1**). When annualized, this translates to a total savings of $23,796. Approximately 48 meal cards are distributed per month, resulting in a cost of this program of $239 per month, or $2,868 annually. Thus, the yearly overall savings to the department was $20,928. Further evaluation was made of data by correlating inventory savings with inventory expense. A 35% cost savings was found when comparing the estimated annual expense prior to the program and the actual expired expense in 2015. Without the program we would have potentially expired $64,080 in one year. We actually expired $40,283. The annualized amount saved is $23,797 (**Fig 2**).

Discussion

Evaluation of this data suggests that the meal card program is effective. Products to expire in the next 12 months are stickered; however, this could be adjusted such that inventory to expire in the next 3 months could be stickered instead. This could potentially decrease the cost of the program. We will not change our practice, however, due to the additional benefit of staff engagement.

In conclusion, inventory can be managed efficiently and effectively in Interventional Radiology. There is a direct correlation between providing incentives for the staff and decreasing the average monthly cost of expired product.

Froedtert & Medical College of Wisconsin

SPOTLIGHT ON A NEW CORPORATE PARTNER: MEDCOMP

Medcomp® is the premier developer, manufacturer and supporter of cutting-edge vascular access devices that meet and exceed the clinical demands of today's medical specialties, particularly in the fields of interventional medicine and dialysis.

Medcomp's engineering and applications expertise provides superior products whose progressive designs accommodate advances in medicine and whose quality anticipates the requirements of their professional clients and the patients they serve. Currently one of the world's largest manufacturers of dialysis and centrally terminating venous catheters, Medcomp is, and always has been, on the cutting edge of new vascular access device technologies.

Symetrex Long Term Hemodialysis Catheter is Medcomp's most recent product offering in the vascular access space. With the novel "green means go" design which is the only catheter FDA approved to "reverse lines as needed," the impact for patients will be substantial. The efficiency of dialysis treatments will be maintained regardless of which lumen is arterialized.

In everything Medcomp does, from research and development to manufacture, packaging, delivery and support, their first consideration is the patient. By continually improving on existing technology, Medcomp is able to provide a catheter to suit every medical requirement while also considering the patient's comfort. Patients, physicians and nurses can rely on a Medcomp device to do its job. For more information on Medcomp's products, please visit their website at www.Medcompnet.com.

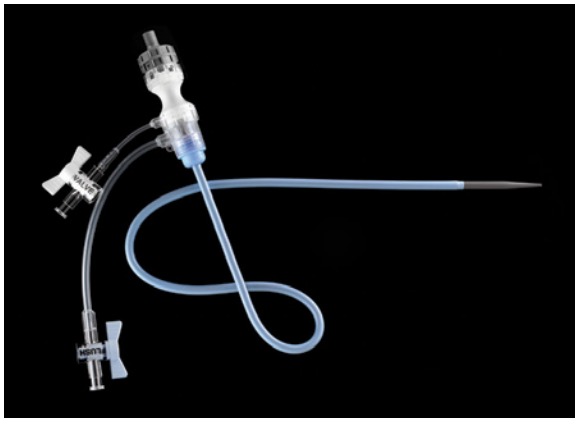
POST-OP

Performance from start to finish.

On to better outcomes.

Advancing care through access.

A new standard of flexibility to treat more challenging anatomies.



Deliver with Ease: Hydrophilic coating and enhanced flexibility provide exceptional access to challenging anatomies and branch vessels

Minimize Blood Loss: Exclusive DrySeal valve enables introduction of multiple devices with proven hemostasis control

Care for More Patients: Optimized profile and new configurations provide tailored delivery options for a broader range of patient anatomy

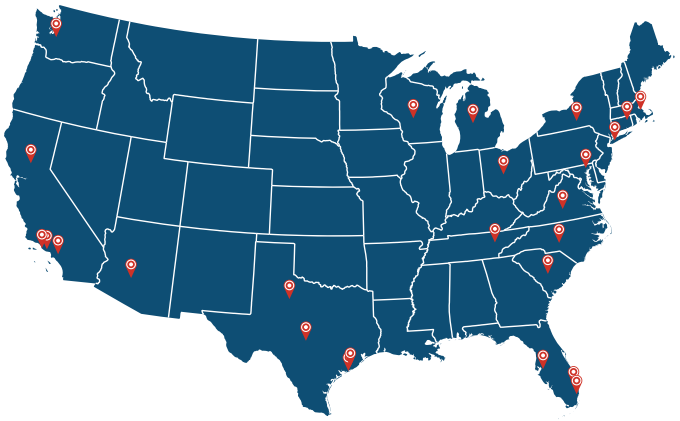
Complete Confidence: Engineered for use with our endovascular portfolio

GORE DRYSEAL FLEX INTRODUCER SHEATH

W. L. Gore & Associates, Inc. | Flagstaff, AZ 86004 | goremedical.com

2016 CHAPTER UPDATES

Mike Kelly, RT(R)(VI)RCIS
Director at Large



Austin, Texas (HCIR) Hill Country Interventional Radiographers

Contact: Derek Stearns
Email: avirhctx@gmail.com

This is a new chapter of the AVIR headed by Derek Stearns. Derek seems to have a great team working with him and they are gearing up for exciting things. They are organizing a formal meeting at this moment for their team to discuss the chapter and their roles within the chapter in order to create an amazing resource for their local IR professionals. I look forward to hearing more from them in the future.

Arizona, Chapter

Contact: Alfredo Yanez
Email: ayanezavir@gmail.com

A newer AVIR Chapter is from Phoenix headed by Alfredo Yanez. They have a lot of interest and support from their local hospitals and staff. I have no doubt they will hit the ground running with some great lectures and add to our membership growth.

Baltimore Chapter

Contact: Karen Finnegan
Email: KFINNEGAN@umm.edu

Boston Chapter

Contact: Amanda Popovitch
Kimberly Mahoney
Email: amanda.popovitch@childrens.harvard.edu, kmahoney18@partners.org

They are currently working to get credits approved for the Wednesday night NESIR journal club. There will be more great things to come this year from this chapter.

Buckeye State Chapter (Ohio)

Contact: Jamie Hiott RT(R)(CV)(M)(CT)(VI)
Email: jshiott@gmail.com

Connecticut Northeast Chapter of AVIR

Contact: Paul McCarthy RT(R) (VI)
Email: pmccarthy03@yahoo.com

Paul held three AVIR meetings in the Connecticut Chapter since last years annual meeting.. He is continuing to strive with membership for the AVIR and we look forward to hearing from them soon on the other great things they have lined up.

Duluth, Minnesota

Contact: Walter Emerson
Email:walter.emerson@essentialhealth.org

Walter is the department and IR Clinical Manager at St. Mary's Medical Center in Deluth. He is developing a new Vascular and Interventional Radiology practice there and already planning meetings for that area.

Great Lakes Michigan Chapter

Contact: Michelle Denomme
Email: mdenomme@beaumonthospitals.com

Knoxville, TN-New

Contact: Dan Bernard
Email: djbernard@me.com

The Tennessee team is hard at work in planning for their next Tennessee AVIR Chapter meeting. The meeting will be held January 21st – 22nd 2017 at the Wilderness Resort of the Smokies. This year they will be working on credits to also include RN's. They are hoping to have the itinerary and speakers announced by Sept. 15th. It will be announced on their revised TN chapter Facebook page. They have been using their Facebook page for chapter communication and to post articles and cases of the month that are always open for discussion. Please join, like and share their page.

The TN Chapter is pleased to announce their new board:
Dan Bernard – Chapter President
Alan Buck – Chapter Vice President
Gary Anders – Chapter Secretary/Treasure
Brad Mitchell – Chapter Director at Large
Chris O'Fallon – Corporate Liaison

South Florida-Broward Chapter

Contact: Jamerson Guillaume
Hatm Muhammed

Email: jguillaume10@gmail.com, hatm65@hotmail.com

This new Chapter in South Florida is excited to get things up and running for this year. Jamerson is heading their organization and gaining the AVIR some new members. We can't wait to see what their Chapter has to offer.

South Florida-Miami Chapter

Contact: Roberto Telleria, RT (R) (CV) (CT)
Email: avir.miami.rt@gmail.com

After putting together yet another great Nurse/Tech Symposium at ISET this year. I can't wait to see what they will do for their 11th annual Nurse/Tech Symposium. In addition to the symposium at ISET, the Miami Chapter have also been participating in a combined meeting with the South Florida Society of Interventional Radiology's Angio Club. Their first meeting was held at Cibo Wine bar and was approved for 2 CEU's. They were able to have Physicians from all over the area presented cases on abdominal aneursym, transhepatic portal vein access, popliteal artery occlusion, Superior Mesenteric Vein thrombosis, and a 4 year old with aortic stenosis. All physicians were encouraged to invite their staff for future meetings. Their next meeting will be held in August.

New York City Chapter

Contact: Rennie Mohabir RT(R) (CV)
Email: mohabirh@mskcc.org

Rennie is really motivated to grow this chapter and I have no doubt that he will do just that. The NYC chapter has plans to put together a great full day conference in the fall. We will keep you updated.

Northern California Chapter

Contact: Darlene Crockett RT(CV)
Email: maildarlene@juno.com

North Carolina Chapter of AVIR

Contact: Diane Koenigshofer MPH, BSRT-R(CV), FAVIR
Email: dianek@nc.rr.com

North Texas Chapter

Contact: Sven Phillips RT (R) VI
Email: sven427@yahoo.com

Orange County California Chapter (OCAVIR)

Contact: Brett Thiebolt (R)
Email: thieboltbh@stjoe.org

The Orange County California Chapter has been involved with an Angio Club that meets quarterly for the last few years. We ask multiple facilities in the Orange County and LA area to provide case presentations. We usually ask for teaching cases or cases that have complications. The Angio Club is open to Physicians (IR Radiologists, Cardiologists and Vascular Surgeons), Fellows, Residents, RT's and Rn's.

Orlando, Florida Chapter

Contact: Jodie Reynolds
Email: jodieavir@gmail.com

Great news central Florida interventional technologists! The Orlando chapter of AVIR is up and running at Nemours Children's Hospital. They have an exciting year ahead of us and will be offering amazing new benefits. In conjunction with physicians and medical supply representatives, we will be hosting meetings to further educate our community on the history and future of AVIR.

Seattle Chapter

Contact: Leona Benson RT (R)(CV) FAVIR
Email: seattleavir@hotmail.com
www.seattleavir.com

South Carolina (SCAVIR)

Contact: John Furtek RT (R)
Email: jfurtek52@gmail.com

The South Carolina Chapter is holding the 12th annual S.E.T. Symposium in Kiawah Island, South Carolina. It is scheduled for February 23rd -25th 2017. The Sanctuary of Endovascular Therapy (S.E.T.) has established itself as one of the premier endovascular meetings. The Symposium provides vascular surgeons, interventional radiologists, cardiologists, podiatrists and allied health professionals a unique interactive program with the most current information and treatment options for endovascular disease.

This three-day event featured presentations from world-renowned specialists with an emphasis on the latest advances, changing concepts and new techniques in endovascular treatments. Our faculty brings diverse specialty backgrounds that provide a unique perspective.

The program includes Drug Eluting 3D printed balloons, Interactive Panel Discussion, Pedal & Radial Access, Case Presentations, AAA/TAA Discussions and more.

2016 CHAPTER UPDATES

Tampa, Florida

Contact: Pete Stibbs
Email: pete.stibbs@argonmedical.com

Texas Gulf Coast Chapter-New

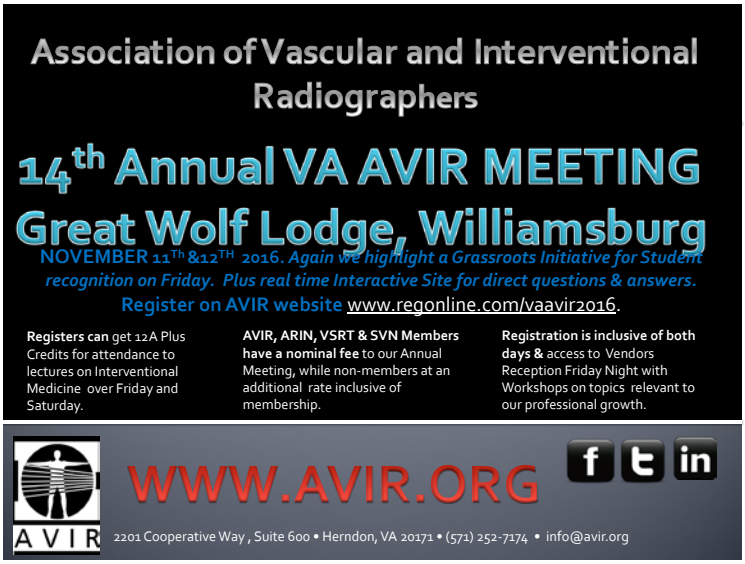
Contact: Gloria Andrews, Anjelica Alvarado
Email: gloria.avir@outlook.com, ama.avir@gmail.com

Lead technologists Angelica Alverado and Gloria Andrews have set their Chapter up to welcome new members and recruit non-members in their local regions of Humble and Kingswood, Texas. Their drive to have a voice in the medical field is no doubt going to attract a great crowd.

Virginia Chapter VA AVIR

Contact: Mike Kelly
Email: mikekelly041@yahoo.com

The VA AVIR is in the process of planning their 14th annual symposium at the Great Wolf Lodge in Williamsburg, VA on Nov. 11th & 12th. Once again they will have a Friday night session geared towards students and those currently interested in the world of Interventional Medicine. Along with great topics such as; What is Interventional Medicine, Team Dynamics, career pathways, and tools of the trade; they will have opportunity to speak with industry professionals, Interventional professionals, and many other professional affiliates. There will also be ARIN representation present and credit opportunities for RN's.



The Saturday portion of the symposium is sure to be a great day full of lectures regarding many aspects of our profession. They have even started a Facebook page (https://www.facebook.com/VAAVIR) that will keep those who follow it up to date on the latest topics and speakers for the meeting. They plan on also utilizing this Facebook page for possible area events that concentrate on Interventional Medicine.

The VA AVIR is also very honored to have one of its founding members, Rita Howard R.T.(R)(CV), acknowledged by the national AVIR board as the "2016 Award of Excellence" recipient. She was presented with her award at the 2016 national AVIRmeeting in Vancouver.

Wisconsin Southeast Chapter

Contact: Jen Eklund, Kristen Welch, Deb Barnes
Email: daisymay1210@yahoo.com, kristenavir@gmail.com, debra.barnes@froedert.com

The SEW-AVIR held their annual 8-credit all day symposium on March 12. Dr. Sarah White kicked off the morning by speaking to the group about her research within Interventional Oncology by the use of nanoparticles. World renowned Dr. Patricia Burrows had case presentations on the treatment of pediatric arteriovenous malformations. We had two neuro interventionalists speak; Dr. Brian-Fred Fitzsimmons and Dr. Dhruvil Pandya on endovascular treatment of hemorrhagic and ischemic stroke along with many other stimulating presentations. This symposium was a record high in attendance for the group!

In June they held another CEU presentation given by Dr. Alexandra Fairchild from the Medical College of Wisconsin on Approaches to Total Venous Occlusion. Dr. Fairchild talked about the use of RF PowerWire™ and other endovascular treatments to treat occlusive disease.

The SEW-AVIR is planning another event to be held in late July / early August centered around the care of ischemic stroke patients. This event will be sponsored by Stryker Neurovascular. Please stay tuned for more details regarding this exciting event!

Deliver the
longest length,
lowest profile,
indisputably **safe**,
proven **effective**,
only **GeoAlign®**
Marking System equipped,[1]

#1 Selling DCB
on the U.S. market.[2]

LUTONIX® 035 | 5F
Drug Coated Balloon PTA Catheter

[1] In select sizes. LUTONIX® offered sizes as of June 2016: lengths of 40, 60, 80, 100, 120, 150 mm, diameters of 4-6 mm up to 150 mm, 7 mm up to 60 mm. LEVANT 2 clinical trial data on file. N=476. At 12 months, treatment with LUTONIX® 035 resulted in a primary patency rate of 73.5% versus 56.8% with PTA alone (p=0.001). Primary patency defined as absence of binary restenosis defined by DUS PSVR ≥2.5 and freedom from Target Lesion Revascularization (TLR). At 12 months, treatment with LUTONIX® 035 resulted in a freedom from primary safety event rate of 86.7% versus 81.5% with PTA along (p=0.185). Primary safety defined as composite of freedom from all-cause perioperative death and freedom at 1 year in the index limb from Amputation (ATK or BTK), Reintervention, and Index-limb related death. Numbers reported are Kaplan-Meier analyses, not pre-specified.

[2] Calculated based on dollar sales. MRG Moving Annual Total 2016 Data published May 2016 based on hospital sample. Includes third party vendor sales for LUTONIX®. © 2016 Millennium Research Group, Inc. All rights reserved. Reproduction, distribution, transmission or publication is prohibited. Reprinted with permission.

Please consult product labels and instructions for use for indications, contraindications, hazards, warnings, and precautions. Rx only Bard, Advancing Lives and the Delivery of Health Care, and Lutonix are trademarks and/or registered trademarks of C. R. Bard, Inc. or an affiliate. All other trademarks are the property of their respective owners. Copyright © 2016, C. R. Bard, Inc. All Rights Reserved. Illustration by Mike Austin. Copyright © 2016. All Rights Reserved. Bard Peripheral Vascular, Inc. | 1 800 321 4254 | www.bardpv.com | 1625 W. 3rd Street | Tempe, AZ 85281 BPV/LTNX/0316/0067b(1)

Advancing Lives and the Delivery of Health Care™

BARD

SIR ABSTRACT

Cost Effective Management of Short-Dated Inventory in Interventional Radiology

Debra Barnes BS, RT(R),CV, Katie Scheuerlein BS,RT(R)VI, Kristen Welch RT(R)VI, Emily Vande Slunt BS,RT(R),VI, Natasha Anderson RT(R),VI, Michelle Weithaus RT(R),VI, Andrew Strycker BS, RT(R) VI, Julie Aguilar BSN, RN, RCIS, Zachary Timm MA, Megan Wilfert RT(R), VI, Steven Jakubowski BS, RT(R)VI, CT, Kathryn Bonlender RT(R),VI, Megan Proulx RT(R), Amber Roessler RT(R),VI, Holly Dembny RT(R),CV, , Elizabeth Rodriguez RT(R),VI, Sarah B. White, MD, MS

Purpose: Interventional Radiology (IR) is a dynamic, fast-paced specialty where complex procedures are being developed daily. The inventory necessary to perform these procedures is just as dynamic, as it constantly changes and requires a large variety of equipment to be kept in stock. While procedures and inventory needs change, products can expire without vigilant watch. The purpose of this study was to develop a program to decrease the expired products in IR.

Materials and Methods: Because this project was part of a quality assessment and quality improvement process, this study was deemed exempt by the Institutional Review Board. From February 2013-September 2015, inventory within one year of expiration was labeled with a bright colored sticker, indicating to the technologist and physician which equipment should be used first. Any person using a stickered inventory item for a procedure was given a $5 meal card redeemable at the hospital cafeteria or gift shop. In addition, a report was generated via a web based inventory management system (SpaceTrax, Lincoln, NE) detailing the inventory that would expire at the end of the month. All identified products were pulled from the shelves and placed in clear view for staff to see for 30 days prior to expiration. The cost of the expired inventory was tracked monthly, as was the cost of the incentive program. Comparison was made to cost incurred of expired products from January 2013 - December 2015 (annualized).

Results: From January 1, 2013 – January 31st, 2013, the mean cost of expired product was $5,340 per month. From January 1st, 2015 – September 30th, 2015, the mean cost of expired products decreased to $3,534 per month, representing a mean savings after implementation of the program of $1,806 per month by using expiring product. When annualized, this translates to a total savings of $21,672.The average monthly cost of this program is $239 in meal cards, or $2,868 annually. Thus, the yearly overall savings to the department was $18,804.

Conclusion: Inventory can be managed efficiently and effectively in IR. There is a direct correlation between providing incentives for the staff and decreasing the average monthly cost of expired product.

DEAR COLLEAGUE,

We are writing to inform you of a regulatory proposal introduced by the U.S. Department of Veterans Affairs.

Under this proposal, advanced practice registered nurses would possess full practice authority, without clinical supervision or mandatory collaboration with physicians. Full practice authority includes the ability to, “Order, perform, supervise, and interpret laboratory and imaging studies” in VA facilities.

As we continue to push the envelope of innovation lets join together to ensure our foundation and core values, patient care, advocacy, and safety, are protected. The AVIR advocates that all patients who require imaging receive care from certified technologists who possess the education and expertise to provide and perform advanced imaging procedures. Please join your voice to ours as we speak up against this proposed change.

Please follow the link below to join us in contacting your federal law makers in Congress.

Regards,

David Nicholson, RT(R)(CV)
President, AVIR

Alisha Hawrylack RT(R)(VI)
Vice President, AVIR

VA PROPOSAL WOULD LET NURSES TAKE ON IMAGING DUTIES

Christopher Steelman, MS, RT(R)(CI),CRT(F),RCIS

The Medical University of South Carolina Children’s Hospital

The U.S. Department of Veterans Affairs has introduced a regulatory proposal that would allow advanced practice registered nurses full practice authority without clinical supervision or mandatory collaboration with physicians. Full practice authority includes the ability to, “Order, perform, supervise, and interpret laboratory and imaging studies” in VA facilities.

The ASRT strongly opposes this measure as only registered radiologic technologists should perform procedures that use ionizing radiation. Certified nurse practitioners do not have the education, experience or skills required to perform highly technical procedures like conventional radiography and fluoroscopy, computed tomography, magnetic resonance, nuclear medicine, vascular-interventional procedures or bone densitometry. This proposal is a threat to patients and registered radiologic technologists.

We encourage all radiologic technologists to join in our effort to oppose this shortsighted proposal. Please submit your comments to the federal government and let them know that you strongly oppose the VA’s efforts to bypass patient safety measures by allowing nonqualified certified nursing professionals to perform medical imaging procedures. You can submit comments to the Federal Register. The ASRT has also created a message to send to your federal lawmakers in Congress urging them to contact the VA and voice opposition to this proposal. Please go to the ASRT Advocacy Action Center to email your congressman and senators. Your urgent action is needed today!

SAVE THE DATE FOR THE THIRD ANNUAL VI WORKSHOP!

Join us in D.C.
October 29th - 30th
10 Available Credits

As the ARRT continually works to ensure that the content and educational requirements of the Vascular-Interventional Radiography Examination reflect our unique skillset as technologists, the Association of Vascular and Interventional Radiographers is working to provide both our members, and non-members, with the resources required to meet those requirements as well as excel in our profession.

One of these resources will be our Third Annual VI Workshop, where technologists will have the opportunity to receive ten CE credits while enjoying lectures focused on the fundamentals of our field.

Lectures will include:

- Patient Care and Assessment (1.0 CE CREDIT)
  - This lecture will focus on developing the necessary skills to properly assess patients for a variety of IR procedures, managing patients during procedures, handling medical emergencies, and post procedure care.
- Anatomy and Pathology (1.5 CE CREDIT)
  - A comprehensive review of vascular and nonvascular anatomy as well as corresponding pathology.
- Neuro Anatomy and Pathology (1.0 CE CREDIT)
  - A one hour review of the anatomy, pathology, and common interventional procedures utilized in Neuro-Interventional Radiology.
- Diagnostic and Interventional Inventory (1.5 CE CREDIT)
  - The construction, design, and indications for use of both diagnostic and interventional inventory will be discussed.
- Core Cases (1.0 CE CREDIT)
  - Case studies involving core IR procedures; PTC, PCN, Visceral Arteriograms, and Peripheral Arteriograms.
- Textbook TIPS: Perfect Complex Cases (1.0 CE CREDIT)
  - A look at “textbook” examples of patients requiring more complex interventions. TIPS, TAA, and AAA will all be covered.
- Mock Registry (2.0 CE CREDITS)
  - Participants will have two hours to complete a Mock Vascular Interventional Board that will help to prepare them for their registry.
- Post-test discussion (1.0 CE CREDIT)
  - A post test discussion will be held at which time participants will have the opportunity to review their mock registry results, ask questions, and engage with speakers.

We look forward to seeing you in DC! Additional information coming soon.

SIR RECOMMENDS CHANGES TO CMS'S PROPOSED NEW PAYMENT RULES

June 28, 2016—The Society of Interventional Radiology (SIR) announced that it has submitted comments to the Centers for Medicare & Medicaid Services (CMS) recommending changes to the Quality Payment Program proposed rule.

On April 27, the US Department of Health and Human Services announced that it was issuing a Notice of Proposed Rulemaking to implement key provisions of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), bipartisan legislation that replaced the flawed Sustainable Growth Rate formula with a new approach to paying clinicians for the value and quality of care they provide. The proposed rule would implement these changes through the unified framework called the Quality Payment Program, which includes two paths: the Merit-Based Incentive Payment System (MIPS) and Advanced Alternative Payment Models (APMs). The CMS Fact Sheet on the proposed program is available online here.

In the society's announcement, SIR President Charles E. Ray Jr., stated, "We appreciate CMS' considerable effort in developing the proposed rule and believe that, with some modifications, a workable solution for patients and interventional radiologists can be achieved. Several aspects of the rule, as proposed, could have negative consequences for patients' access to and choice of care."

Dr. Ray continued, "We are concerned that the proposal's arbitrary thresholds regarding who reports on all four aspects of the Quality Payment Program and the mechanisms and timelines for reporting may actually work against the intent of the Medicare Access and CHIP Reauthorization Act. Rather than providing increased access to innovative, quality care for all patients, the reporting burdens and restrictions may reduce access to care, particularly in rural and underserved areas."

According to SIR, under the rule, physicians who fall below arbitrary thresholds comprised of total billed Medicare charges and total Medicare patients seen, or a yet-to-be defined list of patient-facing procedures, will either be excluded from MIPS or required to report on fewer MIPS measures. SIR believes a potential, unintended consequence of these low thresholds is that patient access to low-complexity but critical interventional radiology services in some practices will be limited, particularly in smaller groups and rural communities. These practices have historically used the group practice reporting option (GPRO) to simplify the administrative burden of measure reporting under current quality measurement system.

Dr. Ray stated, "The rules proposed for GPRO under MIPS take an all or nothing approach for reporting. We are concerned that there could be an impetus for groups whose physicians meet different thresholds to limit access to important patient-facing, interventional radiology services needed in the community simply because of the reporting requirements. This is not good for patients."

SIR's comment letter to CMS, provides details about each of the recommendations.

SIR recommended that CMS raise the threshold to 100 encounters, allow for mixed reporting within a mixed group, and offer a 2-year notice of change to allow clinicians the opportunity to adjust practice and reporting, given that there is a 2-year lag between performance and adjustment years.

In addition to having unintended consequences for patient's access to an interventional radiologist's care, SIR is also concerned that aspects of the rule make it difficult for interventional radiologists to accurately capture and measure quality across the breadth of care they provide.

SIR is recommending that CMS raise the cap on reporting measures contained in a single Qualified Clinical Data Registry (QCDR) and allow physicians to report across multiple QCDRs to measure quality. SIR believes this would incentivize a "team-based" approach to patient care and allow specialties like interventional radiology, which treat an array of conditions all over the body, to use a number of registries.

Dr. Ray explained, "To drive the best quality of care, physicians should be allowed to measure themselves against metrics specific to the procedures they're performing. However, practitioners are currently limited to reporting through a single QCDR and that registry is capped to only 30 quality measures."

In late 2016, SIR will launch its IR Registry within the American College of Radiology's National Radiology Data Registry and CMS's restrictions around QCDRs will make it difficult to cover the scope of interventional care in one registry.

Dr. Ray added, "Given the breadth and variety of practice within interventional radiology, our members need a sufficiently wide variety of measures from which to choose in order to meaningfully and accurately report on their performance. This flexibility of defining measures in a QCDR is complementary to the annual call for MIPS measures and would increase the likelihood that interventional radiologists would be able to report on quality measures meaningful to the Medicare patient population they treat."

WHAT IS GOING ON INTERVENTIONAL MEDICINE!

David S. Douthet, RT(R)(CV)
Publications Chair

Stenting and endarterectomy have similar outcomes in asymptomatic patients with severe carotid stenosis

During a five-year follow-up period, asymptomatic patients with severe carotid stenosis had similar rates of stroke and survival whether they underwent carotid artery stenting with embolic protection or carotid endarterectomy.

Similar efficacy for embolic protection devices in carotid artery stenting

For patients undergoing elective carotid artery stenting, in-hospital and 30-day stroke and death rates were similar if they received proximal embolic protection devices or distal filter embolic protection devices, according to a study that compared the efficacy of the devices.

Hospital reimbursement for alteplase does not match up with increased costs

During the past decade, the cost of alteplase increased 111 percent, although reimbursement to hospitals for the clot-busting medication increased only 8 percent, according to an analysis.

Data Drought: The Struggle to Build Evidence in Vascular Medicine & Intervention

Mar 17, 2016 | Michael R. Jaff, DO

Despite the increasing prevalence of peripheral artery disease (PAD) around the world (Lancet 2013;382:1329-1340), the impact of PAD on survival and quality of life (Glob Heart 2014;9:145-158) and the expanding prevalence and impact of venous thromboemboli on the population at large (Eur Heart J 2014;35:2855-2863), there is little doubt that physicians will continue to be challenged by the diagnostic and management conundrums facing these complex patients.

The vast explosion of minimally invasive catheter-based technologies for the treatment of arterial and venous thromboembolic diseases has offered novel approaches for our patients. However, the clinical science supporting specific strategies is seriously lacking, and many studies have been performed solely for regulatory approval. This limited trial data does not assist the practicing clinician in deciding optimal therapies for individual patients.

The field of vascular medicine and intervention has historically demonstrated unhealthy competition among specialties about whose practitioners have the greatest expertise and capabilities to manage patients. This competition has led to a nonproductive environment that not promoted improved data for clinical decision making; rather, it has resulted in vertical silos of competitive behavior.

Stakeholders who have an interest in promoting optimal health for patient populations have recently identified vascular disease as an important area of focus. During the Medicare Evidence Development and Coverage Advisory Committee (MEDCAC) meeting focused on PAD in July 2015, the Centers for Medicare & Medicaid Services (CMS) made it clear that interventions for PAD in Medicare-eligible patients have limited scientific support and that this relative void is a subject of intense interest to them. During the MEDCAC meeting, an unusual event occurred: seven separate professional medical groups with interest in patients who have vascular diseases came together and organized a series of coordinated presentations. These organizations included the American College of Cardiology, American College of Radiology, American Heart Association, Society for Cardiovascular Angiography and Interventions, Society for Interventional Radiology, Society for Vascular Medicine and Vascular InterVentional Advances (VIVA Physicians). Each organization was responsible for addressing one of the questions posed by the MEDCAC panel. Although the focus of each presentation was slightly different, the theme was consistent: the impact of PAD on Medicare-eligible patients largely due to systemic atherosclerotic risk, premature death and reduction in quality of life.

VIVA Physicians, a 501(c)3 not-for-profit physician organization, was founded in 2002 to provide comprehensive, state-of-the-art, cutting-edge education in the field of vascular medicine and intervention. The annual VIVA Symposium attracts more than 2,000 attendees whose specialties span vascular medicine and intervention. The VIVA Physicians Board of Directors is multidisciplinary, composed of interventional cardiologists, vascular surgeons, vascular interventional radiologists and vascular medicine specialists. At the 2015 annual meeting, 16 late-breaking clinical trials were presented over two days, highlighting not only the focus of the meeting but also the expansion of data being generated in the field.

VIVA has worked closely with U.S. government agencies, including the FDA and CMS to advocate on behalf of patients. In April 2016, VIVA Physicians will host the first Vascular Leaders Summit. The event will bring together physicians, government representatives, patient advocates and industry sponsors to Washington, D.C., to discuss critical issues in vascular medicine and intervention.

When looking at the challenges facing patients with vascular disease in the next decade, VIVA plans to fulfill its mission to educate the next generation of vascular specialists; to expand our knowledge base; to innovate new strategies for treatment of vascular disease; and to advocate for our patients, whose interests remain clearly in our crosshairs.

WHAT IS GOING ON INTERVENTIONAL MEDICINE!

Bioresorbable Scaffolds: Lingering Challenges for a Device that Goes Away

Drug-eluting bioresorbable vascular scaffolds proved to be noninferior to best-in-class drug-eluting stents at one year for target lesion failure in a randomized clinical trial. The data were sufficient to earn the support of a U.S. FDA advisory panel, but will "as good" be good enough to win over cardiologists and payers?

Game Changer: Success Positions TAVR for Expanded Indications

The prevalence of degenerative aortic stenosis in the growing elderly population has contributed to the demand for innovative and less invasive new technology for aortic valve replacement. Though surgical results are traditionally excellent, many patients are not offered surgical aortic valve replacement (SAVR) due to high surgical risk or inoperability despite the fact that untreated aortic stenosis carries a mortality of up to 50 percent at five years (Lancet 2009;373:956-966). The transcatheter approach has been proven to be an effective aortic valve replacement option for patients with aortic stenosis who are either very high risk or not candidates for surgical therapy. As transcatheter valve technology evolves with improved delivery systems, valve design and patient selection, the likelihood of indications being expanded to include intermediate- and even low-risk patients is likely.

Resetting the Clock: Stent Retrievers & the Race to Stop Stroke

"Time is brain," physicians say. As they ponder new data on acute stroke intervention with stent retrievers, many are advocating for new systems and a team-based approach modeled after the successful door-to-balloon time protocols that have vastly improved heart attack outcomes.

FDA recalls catheters used in drainage sets

The FDA recalled the catheter included in the Fuhrman Pleural/Pneumopericardial Drainage Set, which is used to remove air from the pericardium surrounding the heart or drain fluid from the pleural cavity that protects the lungs.

Cook Medical voluntarily recalls catheters, pressure monitoring sets and trays

Cook Medical voluntarily recalled 360 lots of its single lumen central venous catheters and pressure monitoring sets and trays, according to an FDA news release. The recall included 17,287 devices, which are intended for use in venous or arterial pressure monitoring, blood sampling and administration of drugs and fluids.

FDA approves thrombectomy catheter to treat deep vein thrombosis

The FDA approved the AngioJet ZelanteDVT thrombectomy catheter on Nov. 30 to treat patients with deep vein thrombosis. The catheter also received a CE Mark on the same day for approval in Europe.

Reverse Course: NOAC Antidotes Poised to Allay Bleeding Concerns

The stars appear to be aligned for drugs that reverse the effect of novel oral anticoagulants (NOACs). Regulators in the U.S. have moved them forward, anxious to provide emergency physicians an antidote in cases of life-threatening bleeding. But the ultimate beneficiaries may be patients who need but don't take anticoagulants because of bleeding fears.

Stent retrievers make Cleveland Clinic's top 10 medical innovations for 2016

As part of its annual Medical Innovation Summit, the Cleveland Clinic released its top 10 medical innovations for 2016. The list of the technologies that will have the biggest impact in healthcare included neurovascular stent retrievers, which are used after patients suffer an ischemic stroke.

Until the FDA-approval of stent retrievers in 2012, a tissue plasminogen activator (tPA) was the only option for removing the clot that occurs within a blood vessel following a stroke. The Cleveland Clinic noted that tPA is effective in fewer than one-third of patients when an occlusion forms in a major vessel.

In June, the American Heart Association and American Stroke Association updated its guidelines and added the use of stent retrievers in conjunction with tPA for first-line treatment in some patients with acute ischemic stroke. The stent retrievers are the Solitaire (Medtronic) or Trevo ProVue (Stryker).

In addition, a meta-analysis of five randomized controlled trials published in October found that patients receiving stent retrievers had no difference in the rates of symptomatic intracranial hemorrhage compared with those receiving standard treatment. The stent retriever group also had a trend towards decreased 90-day mortality.

"This is an important breakthrough in stroke treatment; in fact, the most important breakthrough since the NINDS (National Institute of Neurological Disorders and Stroke) t-PA trial that established the use of IV thrombolysis for ischemic stroke 20 years ago," the researchers wrote in the *Journal of*

WHAT IS GOING ON INTERVENTIONAL MEDICINE!

the American College of Cardiology: Cardiovascular Interventions on Oct. 11. "It is anticipated to result in major changes in healthcare systems and accelerate the development of centers of excellence, such as comprehensive stroke centers, that will be preferentially able to accept and treat patients with the most severe ischemic strokes. Several current or planned studies may provide high-level evidence for the efficacy of endovascular treatment in different patient populations and subgroups, refinement of retrieving devices and selection criteria that may allow the time window to be extended even further."

Here's the Cleveland Clinic's top 10 list:

1. Vaccines to prevent public health epidemics
2. Genomics-based clinical trials
3. Gene editing using CRISPR
4. Water purification systems for prevention of infection diseases
5. Cell-free fetal DNA testing
6. Cancer screening via protein biomarker analysis
7. Naturally controlled artificial limbs
8. First treatment for female hypoactive sexual desire disorder
9. Frictionless remote monitoring
10. Neurovascular stent retrievers

Solitaire stent retriever reduces disability after stroke

Patients with acute ischemic stroke had a reduction in the severity of disability and an increase in functional independence after they received mechanical thrombectomy with the Solitaire stent retriever, according to a multicenter, prospective, randomized trial.

Endovascular-first treatment strategy improves outcomes after ruptured AAA

Patients with a ruptured abdominal aortic aneurysm (AAA) who underwent an endovascular-first treatment strategy at Stanford University Medical Center had reductions in perioperative morbidity and mortality and improvements in long-term survival compared with those who had an open repair.

Drug-coated balloons rise above standard balloons for 1-year patency

Treating patients with peripheral artery disease using drug-coated balloons proved superior to standard balloons for efficacy, at least one year out, in the LEVANT 2 randomized trial. Both approaches provided similar safety profiles.

Medicare to pay in full for PAD drug-coated balloons

The Centers for Medicare & Medicaid Services (CMS) has agreed to fully reimburse the cost of drug-coated balloons for outpatient treatment of Medicare patients with peripheral artery disease, retroactive to April 1, 2015.

Hospital size and type affect mortality following OAR and EVAR

Factors in hospitals such as their size and type affect mortality after patients undergo open abdominal aortic aneurysm repair (OAR) or endovascular abdominal aortic aneurysm repair (EVAR), according to a database analysis.

The 30-day mortality for OAR increased significantly as hospital size decreased, while there was no significant association between mortality and hospital size for EVAR. In addition, 30-day mortality for EVAR was significantly lower at academic hospitals compared with community hospitals, while the hospital type had no effect on mortality in patients undergoing OAR. Lead researcher Mahmoud B. Malas, MD, MHS, of Johns Hopkins Bayview Medical Center in Baltimore, and colleagues published their findings online in *JAMA Surgery* on May 13.

They gathered information from the American College of Surgeons National Surgical Quality Improvement Program database on patients undergoing elective infrarenal OAR or EVAR between July 1, 2010 and Nov. 30, 2012. Of the 11,250 patients in this analysis, 21.9 percent underwent OAR and 78.1 percent underwent EVAR. EVAR was more common at academic and community hospitals.

Researchers wrote that the 30-day mortality rates for both procedures were higher than they expected. The 30-day mortality for OAR was 14 percent overall, 13.5 percent at academic hospitals and 14.9 percent at community hospitals. For EVAR, 30-day mortality was 4.3 percent overall, 2.6 percent at academic hospitals and 11.2 percent at community hospitals. Based on a multivariable analysis, researchers found academic hospitals were the most significant predictors of reduced mortality. They suggested establishing regional centers of excellence for OAR and EVAR, where doctors could monitor postoperative care and possibly improve mortality rates.

FDA clears way for more versatile atherectomy device

The FDA issued clearance for the 4 Fr 1.25 Solid Diamondback 360 Peripheral Orbital Atherectomy System to treat patients with peripheral artery disease.

Review finds fewer DVT hospitalizations with rivaroxaban

Researchers comparing patients given rivaroxaban or low-molecular weight heparin in a hospital setting found that use of rivaroxaban correlated to a 27

WHAT IS GOING ON INTERVENTIONAL MEDICINE!

percent reduction in hospital admissions among patients with deep vein thrombosis (DVT).

Do-Better or Do-Over? Cath Lab Safety May Be Ready for a Reboot

At the 2015 Society for Cardiovascular Angiography and Interventions Scientific Sessions, Jonathan J. Rome, MD, director of the catheterization laboratories at The Children's Hospital of Philadelphia, discussed an issue that affects all interventional cardiologists and radiologists: the long-term toll on our bodies resulting from lifetime exposure to radiation and wearing protective equipment.

Radiation safety

Fluoroscopy, the modality used for catheter-based interventions, has progressed over the years. The technology has advanced from detectors that operators looked into directly and fixed x-ray tubes that could be lowered toward the patient without collimation to modern digital equipment that allows us to narrow the viewing field, thus reducing radiation exposure to our patients, teams and us. With each iteration, industry has reduced radiation exposure for all of us.

But are these advances enough? Despite our best efforts at radiation safety, do we still undertake unnecessary risks as we care for our patients? A recent study demonstrating the cancer risk that accompanies our endeavors (Am J Cardiol 2013;111:1368-72) suggests we may need to do more. Is it time to consider that fluoroscopy is an outdated imaging modality that has persisted because we have used it so long, developed so many tools to accompany it and invested so much in hospital infrastructures that support it?

Perhaps we can do better. Researchers have begun delving into the possibility of magnetic resonance imaging (MRI)–based interventions. The concept is appealing because radiation would be eliminated and imaging capabilities would be better than with fluoroscopy. However, the limitations are daunting. Put simply, we have no tools. Our field has been built on the use of fluoroscopy, with research and development focused on catheters, wires and devices manufactured to work with fluoroscopy. To transition to MRI, the vast majority of tools would need to be re-constructed with different materials or impregnated with markers that would make them visible with MRI.

The scanners themselves would present challenges. Several years ago, I visited IMRIS, a company in Winnipeg, Ontario, that was partnering with Siemens to build operating room/imaging suites where neurosurgeons could operate and then bring in a MRI scanner via ceiling-mounted tracks to image progress before sending the scanner back to its room. They had decided to expand their product line to include cath lab/MRI suites where the MRI "donut" would move in, image what was needed and then back off. The problem? Pediatric interventional cardiologists would see their newborn and infant patients swallowed up by the magnet. It would allow imaging, but performing procedures with the magnet would require something very different, specifically, something much smaller.

Protective equipment

Radiation exposure is often on our minds, but we think less about the toll protective equipment takes on our bodies. Wearing lead to protect ourselves has its own debilitating effects on the spine and joints (J Am Coll Cardiol 2015;65:827-9; Catheter Cardiovasc Interv 2015;86:913-24; J Am Coll Cardiol 2015;65:820-6).

Industry has come to our aid with ever-lighter offerings but, again, has enough been done? If we found ways to reduce use of fluoroscopy, as has been done in electrophysiology, could we eventually feel comfortable hanging up our lead after the initial images are collected?

We know the problem and our tools have improved, but it may be time to stop thinking about how to do better and instead consider ways to change.

IR team uses active dosimetry to reduce workers' radiation exposure

Interventional radiology (IR) staffers at 189-bed Lawrence General Hospital in Massachusetts have shown that a commercially available real-time dosimetry system works well in reducing occupational radiation exposures.

The study documenting the success is running in the August edition of Health Physics.

Medical physicist Sashi Poudel, a PhD candidate at Worcester Polytechnic Institute, and colleagues conducted a statistical pilot study to retrospectively analyze changes in exposures to staff working in the IR suite at the Boston-area hospital.

The IR department had earlier implemented a real-time dosimetry system marketed by Cleveland-based Unfors RaySafe, according to the study abstract.

Over an eight-month period preceding the implementation, the research team normalized records of monthly optically stimulated luminescence (OSL) dosimetry data to the number of procedures performed during each month.

WHAT IS GOING ON INTERVENTIONAL MEDICINE!

They then statistically compared these data with the normalized dosimetry records obtained over an eight-month post-implementation period.

Poudel and colleagues performed hypothesis testing on three groups of staff present during IR procedures: radiologists, technologists and all members of the IR staff.

After implementing the system, they found, the IR department achieved a reduction in the average dose equivalence per procedure of 43.1 percent ± 16.7 percent (p = 0.04).

Similarly, the authors report, the IR radiologists had a 65.8 percent ± 33.6 percent (p=0.01) reduction while the technologists had a 45.0 percent ± 14.4 percent (p = 0.03) reduction.

FDA Approves 30-Day Postactivation Shelf Life for BTG's Varithena Venous Treatment

July 6, 2016—BTG International announced that the US Food and Drug Administration (FDA) has approved an extension of the postactivation shelf life of the company's Varithena (polidocanol injectable foam) 1%. The shelf life is extended from 7 days to 30 days.

Merit Medical Acquires Dfine, Inc.

July 6, 2016—Merit Medical Systems, Inc. announced that it has acquired Dfine, Inc. in a merger transaction through which Dfine has become a wholly owned subsidiary of Merit. The purchase consideration was approximately $97.5 million in cash. Dfine is headquartered in San Jose, California.

PACUBA I Trial Compares DCB Versus PTA to Treat Femoropopliteal In-Stent Restenosis

July 7, 2016—One-year results of the PACUBA I trial studying paclitaxel-eluting balloon angioplasty versus percutaneous transluminal angioplasty (PTA) to treat in-stent restenoses of the superficial femoral artery and proximal popliteal artery (femoropopliteal arteries) were published by Christian M. Kinstner, MD, et al in the Journal of the American College of Cardiology (JACC): Cardiovascular Interventions (2016;9:1386–1392).

Tissue-Engineered Vascular Grafts for Dialysis Access

Jeffrey H. Lawson, MD, PhD,

Tissue-engineered vascular grafts (Humacyte, Inc.) utilize donated human cells placed on a tubular scaffold to form a vessel, which is then cleansed of the qualities that might trigger an immune response. The receiving patient's own cells then populate the vessel, with the goal of creating a viable option for use in dialysis access.

IBM Watson forms imaging coalition

Cognitive technology company IBM Watson has formed a new coalition to improve the way physicians use medical imaging data in their daily practice.

Vampirism in the ER traces to war brain injury

Fifteen years after sustaining a traumatic brain injury (TBI) with three-week loss of consciousness while serving in the military, a 38-year-old male presenting as a female entered a hospital emergency department exhibiting self-inflicted injuries. The wounds were consistent with the literature on vampirism and autovampirism, and brain imaging showed focal damage to the patient's bilateral frontal lobes.

Three-Year STRATO Data Support Cardiatis' MFM Device for TAAA Repair

June 22, 2016—Three-year outcomes from the STRATO trial were published by Claude D. Vaislic, MD, et al online ahead of print in the *Journal of Endovascular Therapy (JEVT)*. STRATO is evaluating the safety and efficacy of the MFM (multilayer flow modulator) device (Cardiatis) for repair of thoracoabdominal aortic aneurysms (TAAAs).

ALTITUDE Global Registry Will Evaluate Lombard Medical's Altura EVAR Device in Real World Patients

June 6, 2016—Lombard Medical, Inc. announced plans to conduct a global registry to evaluate its new Altura endograft system for the endovascular aneurysm repair (EVAR) of abdominal aortic aneurysms (AAAs).

Endovascular Observational Teamwork Assessment Tool Evaluated

June 22, 2016—A multistage, multimethod study that sought to modify, content validate, and evaluate a teamwork assessment tool for use in endovascular surgery was published by Louise Hull, et al in the *European Journal of Vascular and Endovascular Surgery* (EJVES. 2016;52:11–20).

As summarized in *EVJES*, stage 1 of the study included expert review and modification of the existing Observational Teamwork Assessment for Surgery (OTAS) tool.

Stage 2 included identification of additional exemplar behaviors contributing to effective teamwork and enhanced patient safety in endovascular surgery (using real-time observation, focus groups, and semistructured interviews of multidisciplinary teams).

WHAT IS GOING ON INTERVENTIONAL MEDICINE!

Stage 3 included content validation of exemplar behaviors using expert consensus according to established psychometric recommendations and evaluation of structure, content, feasibility, and usability of the Endovascular Observational Teamwork Assessment Tool (Endo-OTAS) by an expert multidisciplinary panel.

Stage 4 included final team expert review of exemplars.

The investigators reported that OTAS core team behaviors were maintained, including communication, coordination, cooperation, and leadership team monitoring.

Of the 114 OTAS behavioral exemplars, 19 were modified, four removed, and 39 additional endovascular-specific behaviors were identified. Content validation of these 153 exemplar behaviors showed that 113/153 (73.9%) reached the predetermined Item-Content Validity Index rating for teamwork and/or patient safety.

After expert team review, 140/153 (91.5%) exemplars were deemed to warrant inclusion in the tool. More than 90% of the expert panel agreed that Endo-OTAS is an appropriate teamwork assessment tool with observable behaviors. Some concerns were noted about the time required to conduct observations and provide performance feedback.

Endo-OTAS is a novel teamwork assessment tool, with evidence for content validity and relevance to endovascular teams; additionally, Endo-OTAS enables systematic objective assessment of the quality of team performance during endovascular procedures, concluded the investigators in *EJVES*.

NEWSLETTER ADVERTISING RATES:

Type	Dimentions *Inches*	Ad Rate
Classified Ad	1 column inch	$ 125.00
1/8 page color ad	2¼ x 3¾	$ 525.00
1/4 page color ad	4½ x 3¾	$ 825.00
1/2 page color ad	4½ x 7½	$ 1,200.00
Full page color ad	8½ x 11 (+ ⅛ bleed)	$ 2,000.00

Issue	Close Date	Mail Date
2016 Fall	October 15, 2016	October 30, 2016
2017 Winter	January 15, 2017	January 15, 2017
2017 Spring	February 25, 2017	March 2, 2017

Full payment must accompany ad order

Mechanical Specifications
Dimensions:
Trim Size: 8.5”x11”
Live Area should be kept 1/4” from trim on all sides including gutter.
Bleed extends 1/8” beyond trim on all sides.

File Submission
Digital files should be provided in high resolution PDF format, including crop marks and bleed if applicable. Although not recommended, we will accept the following formats: .eps, .tiff, or Adobe InDesign native files with all support links and fonts. The following file formats are not accepted: Corel, Microsoft Word, Powerpoint or Publisher documents.

All images must be 300dpi and in CMYK or Grayscale color format. All fonts should be embedded or in outlines where applicable. Artwork should be submitted at 100% scale.

MEMBERSHIP APPLICATION

ASSOCIATION OF VASCULAR AND/OR INTERVENTIONAL RADIOGRAPHERS

2201 Cooperative Way | Suite 600 | Herndon, VA 20171 | 571.252.7174 | Fax: 571.858.7174 | Email: info@avir.org

FULL PAYMENT MUST ACCOMPANY COMPLETED APPLICATION FORM

Membership Category — Select only one | Please print or type

❍ **Active** | $ 75/yr* ❍ **Clinical Associate** | $ 65/yr ❍ **Corporate Associate** | $ 65/yr

❍ **Student** | $ 45/yr ❍ **International** | $85/yr

***ACTIVE** – *Submit ARRT Certification or Canadian Equivalent*

❍Mr ❍ Mrs ❍Ms NAME / FIRST M.I. LAST GENERATION *(JR., SR., II, III)*

CREDENTIALS LICENSURE

DEGREE/S REGISTRATION/S

PREFERRED ADDRESS ❍ HOME ❍ WORK

HOME STREET

CITY STATE ZIP

PHONE FAX EMAIL *(for official AVIR business only)*

WORK INSTITUTION NAME DEPT.

STREET *(include department, room number, mail stop codes, etc., if appropriate)*

CITY STATE ZIP

PHONE FAX EMAIL *(for official AVIR business only)*

Length of Time as Tech Area of Expertise: _____

Size of Institution (*# of beds*): _____

____ ❍ Private____ ❍ Academic

Number of Exams Performed at this Institution:

_____ ❍ Vascular _____ ❍ Interventional

Are You a Member of: ARRT ❍ Yes ❍ No **ASRT** ❍ Yes ❍ No

(*If YES, please attach photocopy of membership card/s)*

Other Professional Organizations of Which You Are a Member:

_____

Related Interests (*CQI, Teaching, Publishing, etc.*):

_____

_____

Payment Information: ❍ Check Enclosed

OR Charge Credit Card: ❍ AmEx ❍ MasterCard ❍ Visa

ACCT NUMBER EXP DATE

NAME ON CARD

SIGNATURE

Student Members Only

DIRECTOR

PROGRAM ADDRESS

CITY STATE ZIP

PHONE

WHAT IS AVIR?

The Association of Vascular and Interventional Radiographers (AVIR) is the national organization of healthcare professionals within Vascular and Interventional Radiology and involved in standard of care issues, continuing education and related concerns.

Who Can Become a Member of AVIR?

ACTIVE: Radiographers with a primary focus in Vascular and/or Interventional Radiology. Active members must be ARRT registered or have Canadian equivalent. Submit copy of certification with application.

Dues are $75 per year.

ASSOCIATE: Related healthcare professionals working with or having a special interest in Vascular and/or Interventional Radiology, including Nurses, Medical/Cardiovascular Technologies and Commercial Company Representatives.

Dues are $65 per year.

STUDENT: Students in certified programs for Vascular and/or Interventional Radiographers.

Dues are $45 per year.

INTERNATIONAL: Healthcare professionals working or having special interest in CIT and who reside outside of the United States and Canada. This category includes, but is not limited to, medical technologists, radiologic technologists, registered nurses, licensed practical nurses, Physicians and commercial company representatives.

Dues are $85 per year.

All Memberships are renewable annually each January.

Why Is Joining AVIR Important?

The AVIR is dedicated to you and is a powerful advocate for the special interest and concerns of healthcare professionals working in Vascular and Interventional Radiology. We acknowledge the importance of continuing education, establishing high standards of practice and care, certifying Vascular and/or Interventional Radiographers, and establishing a nationwide network for obtaining information and/or employment opportunities.

What Opportunities Does AVIR Offer?

- Professional growth
- Society of Interventional Radiographers (SIR) Annual Meeting
- Exchange of information and ideas
- AVIR Annual Meeting
- Continuing education opportunities
- Quarterly newsletter
- Local chapter involvement
- National membership directory

The Association of Vascular and Interventional Radiographers (AVIR)
2201 Cooperative Way I Suite 600 I Herndon, VA 20171
571.252.7174 I Fax: 571.858.7174
email: info@avir.org I www.avir.org