Cath Lab Digest

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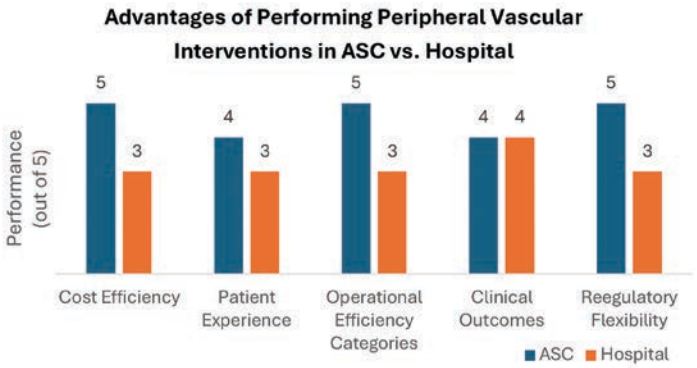

OUTPATIENT SETTINGS

Peripheral Vision: Evaluating Vascular Procedures in Ambulatory Surgery Center (ASC) Settings

Joyce Froetschel, Account Manager, Corazon

Navigating the delivery of patient care related to peripheral vascular procedures can be complex. While advancements in technology, improvements in patient outcomes, and expanding reimbursement have opened new opportunities, it's important to note that peripheral vascular procedures are typically adjunctive offerings within ambulatory surgery centers (ASCs) that already perform cardiac interventions. The establishment of an ASC dedicated exclusively to peripheral vascular procedures is relatively rare, as reimbursement rates tend to be slightly more favorable in physician-owned office-based labs (OBLs).

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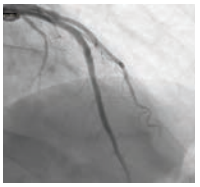
CASE REPORT

Advancing Coronary Intervention With Terumo's Takeru™ PTCA Balloon Dilatation Catheters: A Clinical Experience Across Complex Lesions and Intravascular Lithotripsy



Ghulam Mujtaba Ghumman, MD; Zaid Al-Jebaje, MD

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RADIATION SAFETY

Radiation Safety and Occupational Safety

James B. Hermiller, MD, FACC, MSCAI

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SCAI

Srihari S. Naidu, MD, MSCAI, Discusses SCAI and His Presidency Year

In this introduction to the 2025-2026 Society for Cardiovascular Angiography and Interventions (SCAI) President Srihari S. Naidu, MD, MSCAI, he shares what he most values about the Society, his goals in founding the Emerging Leaders Mentorship (ELM) program, and plans for the upcoming year.

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HMP Global

Radiation Safety and Occupational Safety

James B. Hermiller, MD, FACC, MSCAI

James B. Hermiller, MD, FACC, MSCAI, is the 2024-2025 Past President of the Society for Cardiovascular Angiography and Interventions (SCAI), and Director of the Interventional Cardiology Fellowship and the Structural Heart Program at St. Vincent Ascension Heart Center in Indianapolis, Indiana.

Can you describe your focus on radiation safety and occupational safety, and your work on these issues during your 2024-2025 SCAI presidential year?

One of my missions, probably my greatest mission, is to address occupational safety in the cardiac catheterization laboratory. This issue has gained urgency because we now have new technologies that safely and effectively protect us. These advanced radiation protection devices (RPDS) were not available until recently.

I've been in the cath lab for over 30 years. To prevent radiation exposure, we've worn heavy lead or lead-equivalent personal protective gear, sometimes weighing up to 20 pounds. Over time, that's been associated with a significant number of orthopedic issues, especially cervical and lumbar spinal injuries. Despite our best efforts, many labs still don't provide adequate radiation protection.

In a 2023 SCAI membership survey,[1] we saw just how pervasive this problem is. Thirty percent of respondents reported significant lumbar spine disease. Twenty-five percent reported cervical spine disease. About half said they'd sustained some form of orthopedic injury due to the cath lab environment, and many of those were planning to leave the profession early as a result.

Fortunately, today we have new radiation protection systems that dramatically reduce exposure. In many cases, and may eliminate the need to wear lead entirely. Not only do they offer better radiation protection, they also protect the entire team, not just the primary operator.

My focus has been on how to make this a systemic change. We've created a framework, a kind of pyramid. The foundation is strong scientific evidence, combined with consensus across specialties and professional societies, that these technologies are effective and necessary. The aim of the consnsus document will include input from SCAI, cardiovascular societies, interventional radiology, vascular surgery, nursing, radiologic technologists, and more. The goal is to give cath lab teams the tools they need to advocate for this technology in their hospitals.

The goal is that no one working in a fluoroscopy lab ends up with the kind of spinal injuries many of us now live with. People who've been in the lab as long as I have often feel like we've been through battle. If we can protect the next generation of physicians and staff from that, that's a huge win.

We're developing a toolkit that includes:

- Scientific data on safety and efficacy and position/consensus documents
- Financial modeling and return on investment
- A step-by-step guide for working with and navigating state radiation safety regulatory agencies.

We want to make this a turnkey process for physicians. With this "toolkit" in hand, members can walk into their hospital administration and clearly show: this is what is now recommended; here's how we implement it; here's how it benefits everyone.

The benefits go beyond orthopedic health. About 5% of our membership has had cancer they believe is related to radiation exposure. We also know that concerns about radiation are a major barrier to women entering interventional cardiology. We're losing out on amazing talent because of these very real occupational risks. Addressing radiation exposure can help change that. We've already seen it in recruitment. Fellows and staff are asking about it, and they're making decisions based on whether these protections are in place.

So what does success look like? To me, success means these systems are standard in cath labs across the country. And the technology is only getting better. Innovation is moving quickly. The goal is that no one working in a fluoroscopy lab ends up with the kind of spinal injuries many of us now live with. People who've been in the lab as long as I have often feel like we've been through battle. If we can protect the next generation of physicians and staff from that, that's a huge win.

Just before the 2025 SCAI Scientific Sessions, we held a full-day summit focused entirely on radiation safety. We brought together stakeholders from every relevant area: cardiology, interventional radiology, vascular surgery, OSHA, hospital administrators, radiation regulatory bodies, and nursing and technologist organizations. We asked: What do administrators need to hear to say yes? This summit helped us refine

our approach, and it's exciting to see the momentum building.

Ultimately, reducing radiation exposure will benefit the entire profession, including physicians, staff, patients, and future generations.

As you look ahead to the future, how do you see SCAI moving forward on these issues?

I was incredibly fortunate to serve as SCAI President for 2024–2025. I've seen this organization evolve firsthand. Fifteen years ago, SCAI was a "mom-and-pop operation" consisting of a small, dedicated staff. Today, we've evolved into an effective, high-performing organization. Under the leadership of our CEO, Francesca Dea, and with the dedication of 35 to 40 exceptional professionals, SCAI is operating at a whole new level.

We've updated our five-year strategic plan to reflect that growth. At its core, SCAI remains focused on advocacy for our physicians, our teams, and our patients. That means continuing the push for fair reimbursement and ensuring equitable access to care for patients who aren't yet getting the cardiovascular services they need.

We're also strengthening our efforts around occupational safety and well-being. That includes not only physical safety in the cath lab, but also programs that address burnout and emotional stress, which are major challenges in today's clinical environment.

In addition to advocacy, SCAI continues to expand its leadership in education and science. *JSCAI*, our journal, is now indexed on PubMed, which is a major milestone. We're building momentum with consensus documents and clinical guidelines, all of which reflect the commitment and expertise of our members.

Looking forward, we're investing in research infrastructure, especially SCAI-initiated studies that can advance the field. One exciting frontier is artificial intelligence. Over the next few years, we're launching a significant initiative around how AI can be integrated into interventional cardiology in order to improve patient care, enhance efficiency, and ultimately, support the long-term sustainability of those working in the lab every day.

Today, we have these systems in all of our labs, and I infrequently need to wear personal protective gear. Let me tell you, when I get home at night, I hurt less. I have much more energy. I may be able to practice for a few more years now.

More importantly, the impact on staff has been tremendous. They're the ones in lead and in the x-ray field the most, often even more than the physicians. Their response has been overwhelmingly positive.

Can you share more of your personal experience from the impact of radiation?

Nineteen years ago, I was doing one of the early MitraClip cases. It was a seven-hour procedure. I was bent over the whole time, and when I got home, my back hurt. The next day, my foot was numb. The day after that, my leg stopped working altogether. I ended up needing urgent back surgery. I had come dangerously close to compressing my spinal cord. I couldn't move my leg and was essentially crippled for about six weeks before the strength came back.

As you can imagine, that experience got my attention. It led to what's become a lifelong focus on radiation safety and orthopedic protection in the cath lab. So when the new radiation protection systems became available, it was clear that this was a game changer.

As we began to focus occupational safety in the cath lab, the membership understood right away how important this was, and they've been fully engaged. My own institution, along with our foundation, stepped up. Today, we have these systems in all of our labs, and I infrequently need to wear personal protective gear. Let me tell you, when I get home at night, I hurt less. I have much more energy. I may be able to practice for a few more years now.

More importantly, the impact on staff has been tremendous. They're the ones in lead and in the x-ray field the most, often even more than the physicians. Their response has been overwhelmingly positive. Lab morale is better, and the physical toll has been reduced.

That said, there's a very important caveat: if you're not wearing lead, you must be extremely careful about radiation exposure. These systems are not a "set it and forget it" solution. We still need to be diligent. That's part of the message in the upcoming consensus document. Technology alone isn't enough. It has to be paired with vigilance and proper technique to ensure we stay safe. ■

REFERENCE

1. Abudayyeh I, Dupont AG, Hermiller JB, et al. Occupational health hazards in the cardiac catheterization laboratory: results of the 2023 SCAI survey. *J Soc Cardiovasc Angiogr Interv.* 2025 Mar 4;4(4): 102493. doi:10.1016/j.jscai.2024.102493

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