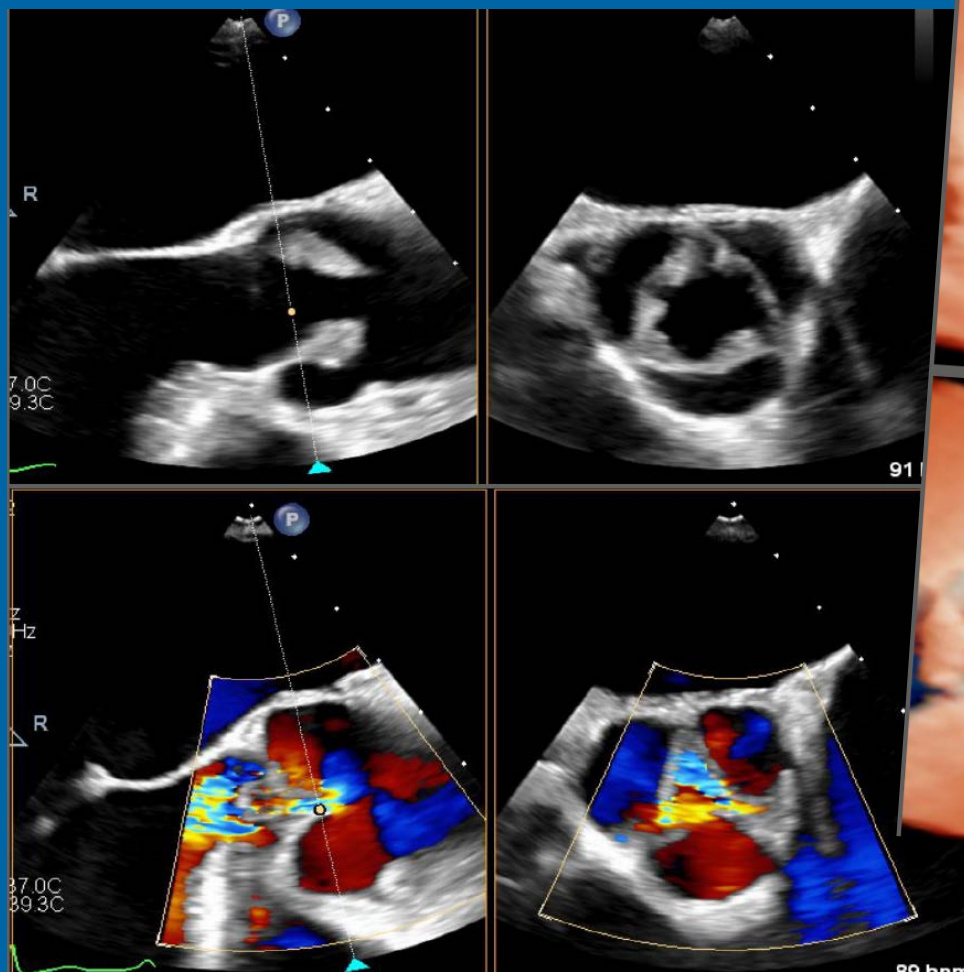


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2025/2026 EDUCATION CALENDAR

JANUARY 2026

SAVE THE DATE

35th Annual Echo Hawaii

January 19-22, 2026

*Fairmont Orchid, Kohala Coast,
Big Island, HI.*

Jointly provided by ASE and the ASE Foundation

FEBRUARY 2026

38th Annual State-of-the-Art Echocardiography

February 13-16, 2026

*Westin Kierland Resort & Spa,
Scottsdale, AZ*

Jointly provided by ASE and the ASE Foundation

JUNE 2026

37th Annual Scientific Sessions

June 26-28, 2026

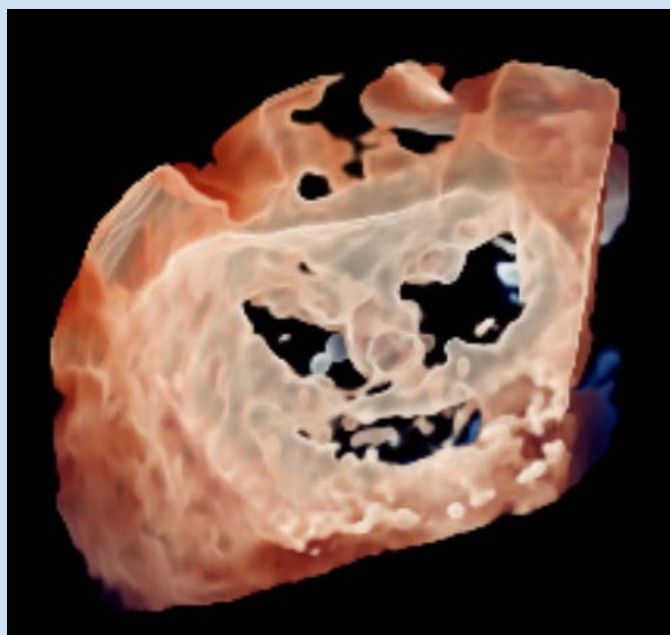
*Gaylord Rockies Resort and
Convention Center, Aurora, CO*

Jointly provided by ASE and the ASE Foundation

Discounted rates for ASE members. *To learn more
and register, visit us at **ASEcho.org/Education**.*

*This text also appears in the September and
October issues of JASE. **OnlineJASE.com***

Hey, Gourd Looking!
*Mary Beth Brady, MD, FASE,
Johns Hopkins University
School of Medicine -
Baltimore, Maryland*



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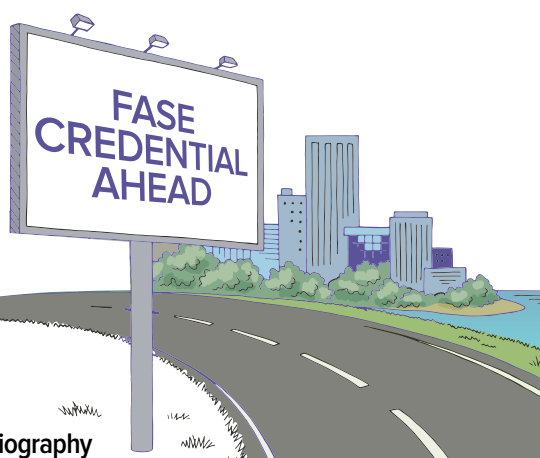
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AMERICAN SOCIETY OF ECHOCARDIOGRAPHY

Meridian Corporate Center
2530 Meridian Parkway, Suite 450
Durham, NC 27713

ASEcho.org | ASEFoundation.org

Phone: 919-861-5574

Email: ASE@ASEcho.org

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American Society
of Echocardiography

Cover art: "The Marantic Kiss" Nancy
Krupowies, BS, RDCS, FASE and Vidya Nadig,
MD, Hartford Hospital, Hartford, Connecticut

EDITORS' NOTE

ASE is very grateful to our members who
contribute to *Echo* magazine and values
their willingness to share personal insights
and experiences with the ASE community,
even if they may not be in total alignment
with ASE's viewpoint.

President's Message for *September*

JASE – THE POWERHOUSE ECHOCARDIOGRAPHY JOURNAL

Contributed by **David H. Wiener, MD, FASE**, Director of Clinical Operations at the Jefferson Heart Institute and Clinical Professor of Medicine at Thomas Jefferson University, Philadelphia, PA and **Patricia A. Pellikka, MD, FASE**, the Betty Knight Scripps-George M. Gura, Jr, MD Professor of Cardiovascular Diseases Clinical Research, and President, Officers and Councilors, Mayo Clinic, Rochester, MN.



“

JASE promotes ASE's strategic goals of educating members and non-members about Change to cardiovascular ultrasound and setting standards for quality patient care.

Introduction - ASE's *Journal of the American Society of Echocardiography* (JASE) is the crown jewel of its publications. Widely read worldwide and viewed as a top-level scientific publication, JASE promotes ASE's strategic goals of educating members and non-members about Change to cardiovascular ultrasound and setting standards for quality patient care. JASE has had exemplary editors-in-chief since its inception. It is my privilege to invite the current JASE Editor-in-Chief (EIC) and ASE Past President Patricia A. Pellikka, MD, FASE, to cowrite this month's President's Message, share exciting news about JASE's impact on our field and update her plans for the journal.

JASE Goes Digital!

We are excited to announce that in January, JASE will become entirely digital. This is environmentally friendly, cost effective, efficient, and appropriate for our global scope of readers and authors.

ENVIRONMENTAL IMPACT: It has been estimated that 15 billion trees are cut down annually. About 35% of all harvested trees are used in the making of paper; it takes about 24 trees to make 1 ton of office paper. Global

deforestation has slowed but continues. Moreover, printing inks are often petroleum based and contain other toxic compounds. Chemical pollutants are released into the atmosphere during the printing process and volatile organic compounds contribute to soil and water pollution when left in landfills. JASE will do its part to help the environment.

COST EFFECTIVE: With digital publishing, we are avoiding the costs of paper and ink, printing charges, and distribution costs. Digital publishing is more cost-effective for our Society and our publisher.

EFFICIENT: Editing, corrections, and updates to content will be able to be made very quickly.

FOR OUR GLOBAL AUDIENCE: Most of our readers already access JASE online. This allows them to access information with a smartphone, tablet, laptop, or desktop from anywhere in the world and to easily share information with others, as well as to file, annotate, and sort content. Given the highly visual nature of echocardiography and our increasing use of figures, central illustrations, and video clips, all this information will be more readily available. We are always interested in engaging with our readership and seeking improved ways to do so.

JASE was founded by Dr. Harvey Feigenbaum in 1988 as a bimonthly publication. A decade later, with growth and popularity of a journal devoted to echocardiography, monthly publication began. Dr. Feigenbaum served as the EIC until 2008. Dr. Alan S. Pearlman became the next EIC, serving until 2018, followed by Dr. Michael H. Picard, until 2023. All did an excellent job in shaping JASE.

Since I assumed my role as EIC in 2023, I have worked on these initiatives:

1. Author experience. We have decreased the median time to first decision by almost two weeks. We aim to provide timely, constructive feedback to the authors even if we are unable to accept their paper for publication. Monthly, I interview an author who published in the issue for the Author Spotlight. With authors' agreement, papers are quickly published online even before they are slated for an issue.
2. Focus issues. Whenever possible, I have grouped papers on related topics in theme issues. I have built several of these around ASE guidelines and



we have invited papers for these issues. Our most recent focus issue was on diastolic function and echocardiographic diagnosis of heart failure with preserved ejection fraction (July 2025), and we have invited submissions for a focus issue on chamber quantification to be published in 2026.

3. Promotion of inclusion and diversity. We continue to seek ways to engage with the global community. We have expanded our database of authors, reviewers, and guest editors. We have increased the size of our editorial team.
4. Improved images and graphics. We have worked with our publisher and authors to improve the color and images on the pages of JASE. A central illustration is recommended for most original investigations.
5. Excellent and impactful content. Our content remains relevant to the practice of cardiovascular ultrasound. In 2024, online usage, tracked by our publisher as article requests, was 1,346,240, nearly doubled from 2022. Our volume of submissions remains strong, up 18% in 2024. The JASE Impact Factor, recently released for 2024, increased from 5.4 in 2023 to 6.0. We continue to strive to be relevant to the clinical practice of cardiovascular ultrasound and to advance the boundaries of our understanding of this technology. Please continue to send your feedback!

This text also appears in the September issue of JASE [OnlineJASE.com](https://onlinejase.com)

President's Message for *October*

ECHOES OF ALIGNMENT: THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY FORGES INTERSOCIETY PARTNERSHIPS

Contributed by **David H. Wiener, MD, FASE**, Director of Clinical Operations at the Jefferson Heart Institute and Clinical Professor of Medicine at Thomas Jefferson University, Philadelphia, PA.

***“If you want to go fast, go alone.
If you want to go far, go together.”***

—African Proverb

“

We are strongest when we **align**, maintain our unique characteristics, and act in concert.

A

SE has a long history of collaborative relations with other organizations. Amplifying what I wrote in July's President's Message, we are strongest when we **align**, maintain our unique characteristics, and act in concert.

ASE was a founding member of the National Board of Echocardiography in 1996, supporting quality through physician certification. In 1997, ASE was a founding partner of the Intersocietal Accreditation Commission – Echocardiography (IAC-Echo), sharing a vision to promote quality through laboratory accreditation. We engage in a data partnership with IAC-Echo via our ImageGuideEcho registry to facilitate accreditation. ASE supports, has board representatives on, and runs joint programs with key sonography quality-focused organizations, including JRC-DMS, JRC-CVT, and CAAHEP. ASE's Industry Roundtable, with its origin in 1998, grew to a record 23 partners in 2025, as we assist our industry partners to grow the field and improve patient care through innovative technology. We are proud to count 36 International Alliance professional society partners, from and with whom we gain broad international perspectives and conduct joint education sessions and author guidelines.

More recently we accomplished the following. ASE is the sole imaging society partnering with the American Heart Association on its Target: Aortic Stenosis initiative to drive efforts for timely diagnosis, appropriate treatment, and improved quality of care. Partnerships of this kind are rich with possibilities. ASE is a member of the World Heart Federation, which champions heart health and acts to reduce the global burden of heart disease and

stroke. Focusing on imaging, ASE entered an agreement with the Cardiology Research Foundation (CRF) for ASE to participate in CRF's New York Valves and TCT meetings and for CRF to be represented at key ASE meetings. We recognize the critical nexus between interventional cardiologists and echocardiographers in the structural space. We aligned with our invasive and interventional cardiology colleagues at the Society for Cardiovascular Angiography & Interventions (SCAI) around work related musculoskeletal disorders and radiation safety. Lucy Safi, DO, FASE, spoke on behalf of ASE at a SCAI-sponsored Fluoroscopy Safety Summit, and we are part of the proceedings paper which will result from it. We will begin to explore opportunities with a disease-based patient advocacy group where echo plays a major role in diagnosis and management, to add the patient's perspective.

Recognizing the need for a formal structure for collaborations, Immediate Past President Theodore Abraham, MD, FASE, and ASE Chief Business Strategy Officer Meredith Morovati, MBA, proposed an intersociety collaboration structure within ASE. The Intersocietal Collaboration Leadership Group recently convened its first meeting. Its purpose is to provide a forum within ASE for planning strategic collaborations. It comprises a group of experienced ASE members who are familiar with the strategic goals of ASE and of the other organizations, so that our volunteers may recommend potential collaborations and convey them to the right people in the other organizations.

This collaboration will strengthen multimodality and intersocietal relations in areas of mutual interest. As we work with other societies, we will support each other's unique positioning and membership, acknowledging the independence and value of each organization. Through dialogue and shared experiences and efforts we will identify deliverables, namely substantive projects where both organizations will benefit.

The chair of the group is the ASE President to emphasize its importance. The President-Elect co-chairs and the Immediate Past President is an ex-officio member to ensure continuity, and the Chief Business Strategy Officer is staff liaison. ASE leaders have been identified as our liaisons to the American Heart Association, Society of Cardiovascular Anesthesiologists, American Society of Nuclear Medicine, Society of Hospital Medicine (serving our POCUS users), Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, Cardiovascular Research Foundation, and Society for Cardiovascular Angiography &

Interventions. We are eager to incorporate more societies in this program.

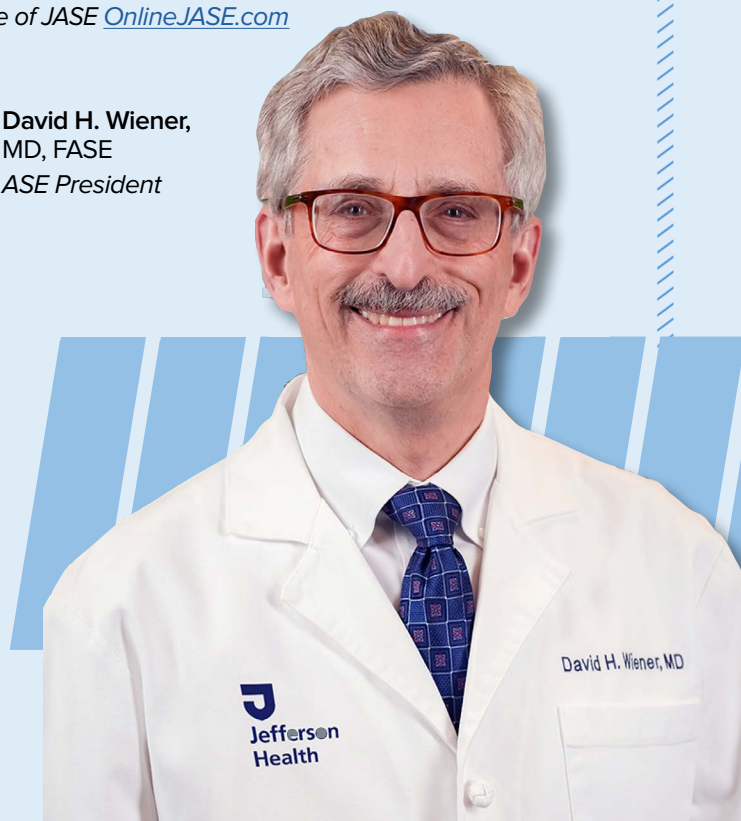
The potential to collaborate is almost limitless. Besides what is underway and mentioned above, we can collaborate on advocacy and health policy, implementation science, and quality improvement including joint guideline production. We can craft disease-based programs which cross imaging silos, expand our data registries, perform collaborative research, provide forums for technology innovation, and together grapple with the advantages and disadvantages of artificial intelligence in cardiovascular imaging, which is already here.

Areas we are working on to benefit our members as individuals include supporting multimodality physician certification and lab accreditation, expanding the influence of sonographers (for instance, career ladder endorsement), and minimizing work-related injuries across all imaging modalities. Meetings for the various imaging societies could co-locate, allowing members of each group to select from multimodality programs (and reduce costs!), and we can pioneer joint innovative educational models.

If you have ideas or suggestions for how and with whom we can grow our alignments, please reach out to Meredith Morovati or to me. Your ASE is the worldwide leader in cardiovascular ultrasound. When you join or partner with us, through collaboration and alignment we go together – and together we go far, for our patients and our profession.

This text also appears in the October issue of JASE OnlineJASE.com

David H. Wiener,
MD, FASE
ASE President



The Sonographer's Road to FASE

Contributed by **Melissa Escudero, MHA, ACS, RDCS, RDMS, FASE**, Sanger Heart and Vascular Institute -Atrium Health, Rock Hill, SC



The road to the FASE credential is becoming more attainable as echocardiography continues to evolve, increase in complexity, and expand.

THE PURSUIT OF THE Fellow of the American Society of Echocardiography (FASE) designation reflects a level of aptitude, accomplishment, and commitment a sonographer has invested into the profession. It is also a testament to the importance of sonographer involvement in ASE committees and councils (the latter requires members in the leadership ladder to have the FASE designation) that shape the trajectory of echocardiography's future for years to come. The road to the FASE credential is becoming more attainable as echocardiography continues to evolve, increase in complexity, and expand. At first glance, the sonographer requirements for the FASE application may seem daunting. However, when analyzed one step at a time, most sonographers will discover they are already working at a FASE level without even realizing it!

ASE has devised a simple to follow points system which mandates applicants attain a minimum of 12 points spanning two distinct sections. A minimum of ten points are required in section one while section two requires a minimum of two points. The qualifications outlined in section one are fairly straightforward. ASE requires sonographers seeking the FASE designation to be registered in good standing with either the American Registry of Diagnostic Sonographers (ARDMS) or Cardiovascular Credentialing International (CCI) with at least five years of experience. Additionally, applicants must be a member of ASE for one full year prior to the applicant year.

FASE candidates must be able to prove continuing medical education compliance (CME /CEU) for the five years prior to initiating the application process. Applicants are also required to submit a current curriculum vitae. To round out the check list in section one, sonographers will need three supporting letters outlining their qualifications, education, and background. One letter must be from a physician. Sonographers and physicians work collaboratively in the echo lab which lends itself to establish a culture of support for a sonographer's pursuit of the FASE credential.

Section two of the application allows the sonographer to showcase their individual path taken in sonography summarized as professional activities. These are defined by three categories: education, research and scholarly work, and leadership/volunteerism. Sonographers typically only need to fulfill one of the three subheadings

Sonographers typically only need to fulfill one of the three subheadings under professional activities, but many may find they can fulfill two or all three.

under professional activities, but many may find they can fulfill two or all three.

ASE defines education as a regular commitment to the profession of cardiovascular ultrasound through teaching. Many teaching



opportunities exist for sonographers inside and outside of the echo lab. Students, fellows, new hires, and shadows are all mainstays in echo labs across the country. There are countless opportunities for educational support for these groups. Many echo labs have internal educational programs where sonographer leaders and staff sonographers can present interesting cases or talks on specific educational topics. Adjunct positions at a school are also an excellent opportunity for sonographers to pursue the educational requirement of the FASE application. Additionally, local echo societies and echo clubs often have sonographers presenting relevant topics to their respective audiences. Echocardiography is a profession where learning never ceases and teaching moments are plentiful.

Oftentimes, sonographers may have pursued an alternate path in their career to attain the professional activity mandate for the FASE credential. Research and scholarly work is a complementary method to education that demonstrates commitment and dedication to the profession via an academic pathway. ASE accepts various forms of publications and credentialing that fulfill this requirement. Publication(s) indexed in PubMed, a case report in CASE, abstract or a poster presenter at the Scientific Sessions, authorship of a chapter in a cardiovascular ultrasound textbook, and editorial board membership for a cardiovascular journal, all fulfill the research and scholarly pathway for the FASE credential. Additionally, successful attainment of the Advanced Cardiac Sonographer (ACS) credential also fulfills this particular pathway.

A third selection under the professional activities section focuses on leadership/volunteerism. A plethora of leadership and volunteerism opportunities are available both within and outside of the echo lab. Leading educational talks, devising and streamlining echo lab protocols and presenting a topic at the ASE's Scientific Sessions are just a few examples of how to get involved. Furthermore, participating in a local school's advisory board and having input on education content is another excellent volunteer pathway. Also, serving on the board of a local society where the objective is to bring educational content to regional echocardiography communities in concert with vendors is also an important way to contribute to the echocardiography profession as a whole.

Therefore, the sonographer's pathway to attain the FASE credential is more diverse and varied than ever before.

Therefore, the sonographer's pathway to attain the FASE credential is more diverse and varied than ever before. Sonographers can plan their course based on career interests, the structure of the lab in which they work and the career pathway they pursue to plot their pathway to attaining the FASE credential. Serving on a committee or council for ASE allows sonographers to have a profound impact on the trajectory of ASE. Sonographer ASE volunteers contribute to so many facets of the operations of ASE including shaping educational offerings, advocacy, awards, finance, and governance to name a few. ASE offers a wide range of opportunity to help map the future of echocardiography. ASE strives to offer many distinct volunteer opportunities to cater to varied interests and career paths. As Winston Churchill once said, "we make a living by what we get, but we make a life by what we give." Volunteering for the betterment of the echocardiography profession is both gratifying and fulfilling. If you are interested in serving, please fill out the [Micro-Volunteer Survey](#) to be contacted as volunteer opportunities arise throughout the year. Please contact [Committees @ASEcho.org](#) to ask if there are ongoing projects that might interest you.

SONOGRAPHER SPOTLIGHT

Riley Allen BS, RDCS, FASE

*Michigan Medicine
Ann Arbor, MI*



Q
A

What is the name and type of facility/institution where you work, and what is your current position?

I am a pediatric and fetal cardiac sonographer at the University of Michigan Health West in the outpatient pediatric cardiology clinic. I am also an adjunct professor at Grand Valley State University within the Cardiovascular Sonography program.

When and how did you get involved with cardiovascular ultrasound and who inspires you now?

I left for college in pursuit of becoming a cardiovascular sonographer and chose Grand Valley State University for their program specifically. Once in the program, pediatric echo really caught my attention, and I set sights on that career path. I graduated in 2016 and have been working in pediatric cardiology ever since! There have been many mentors along the way who have, and continue to, inspire me. I have been very fortunate to work alongside very gifted sonographers, physicians, and educators that really instilled a drive to continue learning, the confidence to ask questions, and the humility to always recognize that there is room for improvement. There are also countless patients and their families who have left a lasting impression on me and continue to inspire the ways in which I view my profession and interact with each family I meet.

How did you get involved with the ASE and why do you continue to volunteer?

I first got involved with ASE as a student exploring learning opportunities and post-graduation education resources. As I have grown in my career, I have found myself drawn more and more to the opportunities ASE offers to learn, teach, and celebrate what we do. ASE is a whole world within cardiology and it's a joy to explore it and network within it!

“

As I have grown in my career, I have found myself drawn more and more to the opportunities ASE offers to learn, teach, and celebrate what we do.

”

What is your current role within ASE? In the past, what other committees, councils or task forces have you served and what have you done with the local echo society?

I am a freshly minted FASE member and just starting to really explore ways in which I can be more involved with ASE. I was fortunate to serve as a faculty member for the recent Pediatric and Congenital Heart Disease ASE conference in June 2025, which was a fun and meaningful way to be involved. Outside of ASE, I have the pleasure of being a member of the Pediatric Echocardiography Advocacy and Sonographer Education Committee with the Society of Pediatric Echocardiography. Locally, I have presented at the University of Michigan Health West's Fetal Echocardiography Conference for the past two years and am currently serving on the planning committee for the 2026 Pediatric Echocardiography Essentials Conference, where I will also present.

What are some of the changes you have seen in echocardiography since you started your career?

Since starting my career there have been changes to equipment (so happy to not be lugging an iE33 around anymore!) and software capabilities that keep me in awe of what we can do with ultrasound. I also feel like there has been a welcomed shift in the professional recognition of our profession. The growth that has accompanied technical capabilities cannot be denied and it has been so exciting to see how the work force has positively changed in response.

What is your vision for the future of sonography? What do you see on the horizon that invigorates you?

As the field of sonography continues to advance and grow, I envision the educational opportunities growing in conjunction. I have a passion for sonographer education, particularly within pediatric and fetal echo, and am so invigorated by the stirring of proactive conversation across professional societies. There is such an effort to collaborate and thoughtfully create educational opportunities and resources that serve sonographers within a variety of experience levels and settings.

What is your advice for members who want to become more involved in their profession or with the ASE?

Be curious, put yourself out there, and don't close doors to opportunities, even if they scare you!

“

The growth that has accompanied technical capabilities cannot be denied and it has been so exciting to see how the work force has positively changed in response.

”

Critical Care Echocardiography Featured at ASE 2025

Contributed by **David M. Dudzinski, MD, FASE**,
Massachusetts General Hospital, Boston, MA



The 36th Annual ASE Scientific Sessions in September 2025 in Nashville featured multiple case-based sessions, research, guideline reviews, and “do-it-yourself” scanning opportunities.

THE CRITICAL CARE ECHOCARDIOGRAPHY (CCE) Council invites all interested ASE members to join its efforts in education, scholarship, networking, and best practices. The 36th Annual ASE Scientific Sessions in September 2025 in Nashville featured multiple case-based sessions, research, guideline reviews, and “do-it-yourself” scanning opportunities.

Hands-on Education and Other Modalities:

Multiple seminars were devoted to practicing and perfecting acquisition of cardiac images, with attention to right ventricle size and function, answering clinical questions of volume status and fluid responsiveness, and approaching situations of trauma or cardiac arrest.

Ultrasonography in the contemporary era is also not limited to cardiac applications. Lung ultrasound¹ is a tool in increasing use in ICUs, and there is potential to considering how this modality can complement echocardiography in evaluation of shock and respiratory failure. Lung ultrasound can reliably corroborate pulmonary edema and parenchymal consolidation, which can inform etiology of dyspnea or hypoxemia. VExUS (venous excess ultrasound), which expands from the inferior vena cava to also interrogate hepatic, portal, and renal veins, is another technique applied to evaluate multiorgan congestion and thus guide management of hemodynamics and decongestive therapeutics in the ICU².

What scanning workshops and other modalities would you hope to see at future Scientific Sessions?

Case-Based Learning and Expert Panels:

Several sessions emphasized the need for thoughtful understanding heart-lung pathophysiology in critically ill patients. Combined echocardiography and lung ultrasound protocols are evolving and will be insightful in urgent ICU diagnostics. The role for lung ultrasound mandates additional training and practice at all levels, including cardiologists interpreting and sonographer acquiring images.

Respiratory failure and mechanical ventilation is another context where evaluating heart-lung interactions can inform bedside ICU care. Mechanical ventilation employs positive end-expiratory airway pressure (PEEP) to prevent atelectasis and thereby treat hypoxemia. This alters intrathoracic pressure, which can add afterload to the right ventricle and thus impair its function, but conversely facilitating the ability of the left ventricle to eject. Application of CCE can be used to titrate PEEP by watching for adverse impacts on the right ventricle.

The role of echocardiography in the post-myocardial infarction (MI) patient was described in evaluating scenarios of persistent electrocardiographic abnormalities, new murmurs, elevated jugular venous pressure, and systemic thromboembolism. While post-MI complications have become

less common in the revascularization era, this is the very reason that clinicians and sonographers need to maintain a high index of suspicion and conduct dedicated imaging to evaluate for ischemic mitral regurgitation, ventricular septal defect, and evolution of regional wall motion abnormalities. Because ICU medicine is fast-paced and there may be conflicting pieces of information, several seminars discussed the role of CCE complementing hemodynamic data, specifically the interplay of information from echocardiography and invasive hemodynamic metrics like the Swan-Ganz catheter.

Combined echocardiography and lung ultrasound protocols are evolving and will be insightful in urgent ICU diagnostics.



Table: Some Types of Temporary and Durable Cardiac Support

MODALITY	VENTRICLE SUPPORTED		LUNG SUPPORT	CANNULAE / CATHETERS
Intra-aortic balloon pump	LV		No	Arterial catheter with balloon in thoracic aorta for counterpulsation
Percutaneous LVAD	LV		No	Arterial catheter drains blood from LV apex and returns to proximal aorta
Percutaneous RVAD		RV	No	Catheter drains blood from right heart and returns to pulmonary artery
Paracorporeal LVAD	LV		No	Drainage of LA or LV apex, extracorporeal pump, blood return to ascending aorta
Paracorporeal RVAD		RV	Oxygenator can be spliced into circuit	Drainage of RA, extracorporeal pump, blood return to pulmonary artery
Durable LVAD	LV		No	Surgically implanted pump, draining the LV apex and returning blood to ascending aorta via cannula
VV-ECMO			Oxygenation and ventilation	Two central venous cannulae (one for drainage, one for return). A dual-lumen cannula is also available.
VA-ECMO (peripheral and central)	LV [†]	RV	Oxygenation and ventilation	Peripheral: typically femoral vein drainage and retrograde return via femoral artery. Central: typically drainage from RA and return to ascending aorta

Abbreviations: ECMO, extracorporeal membrane oxygenation; LV, left ventricle; LVAD, left ventricle assist device; RV, right ventricle; RVAD, right ventricle assist device; VA, veno-arterial; VV, veno-venous

[†] ECMO replaces function of the ventricles, but peripheral VA-ECMO increases afterload to the LV

Other sessions focused on adult congenital heart disease, with attention to the systemic right ventricle. As centers are considering heart replacement therapies for this population, understanding of anatomy and unique pathophysiologic states will be required as part of CCE.

Mechanical Circulatory Support:

Proper imaging of critically ill patients with contemporary modalities of temporary mechanical circulatory supports (tMCS) and implanted ventricular assist devices is dependent on understanding what lines and tubes are entering the patient and where (*Table*), what are the impacts on the heart, and what are potential complications of specific devices. This was the theme of the 2024 Guideline³ which was highlighted at a dedicated session with writing panel members.

Ultrasonography crucially plays a role in the entire journey of a patient requiring tMCS, with key roles in selecting patients, facilitating cannulation, monitoring for appropriate device function, excluding cannulae malposition, and finally weaning and liberation from the device. Echocardiography is

Ultrasonography crucially plays a role in the entire journey of a patient requiring tMCS.

essential to exclude both vascular and cardiac anatomic contraindications, as well as physiologic contraindications like significant aortic insufficiency or marked right ventricular dysfunction when evaluating suitability for univentricular left ventricular support. Vascular ultrasound⁴ can help identify vessels and targets appropriate for cannulation, and thereby help reduce iatrogenic complications; it can also be used to support decannulation and confirm hemostasis at arteriotomy sites. Echocardiography is an important tool in the arsenal of the ICU team because it is portable and can be performed iteratively

We welcome all ASE members to join with our Council and share ideas for educational pathways and content, not only for future Scientific Sessions, but also toward creating and curating online educational offerings throughout the year.

to track ventricular and valvular function in response to tMCS, as well as exclude complications like pericardial effusion or cannulae malposition. Lastly, echocardiography is one of the most common modalities to assess when a patient has achieved sufficient ventricular recovery to allow liberation from a device. Ultrasonographers will participate in a dynamic ICU echocardiogram where the level of tMCS support is reduced, and the response of the ventricle is assessed in terms of ejection fraction, regional measures of function like TAPSE, and output estimated by velocity-time integral.

When documenting an echocardiogram on a tMCS patient, indicate what device is present and what the speed and flow settings are, especially when the level of support is adjusted by the ICU team during imaging. Moreover, best practices for documentation imaging on ICU patients would indicate vasoactive infusions are being administered so that impacts of inotrope and vasopressors can be inferred and compared across studies. Recording the ambient blood pressure is also important because left ventricle support devices are sensitive to systemic afterload.

New Frontiers:

Cross-disciplinary research in CCE is elucidating intertwined mechanisms of cardiac dysfunction in critical systemic illness. One research abstract profiled >3000 patients with sepsis-associated

cardiomyopathy during their ICU admission, compared to patients without cardiac dysfunction. Predictors of 30-day mortality, with hazard ratio ~1.2, included left or right ventricular systolic dysfunction. These predictors were not statistically significant on multivariable analysis, and the only predictor of 5-year mortality that emerged was left ventricular diastolic dysfunction. Certainly, more research will be forthcoming correlating specific types of infections and microflora to cardiac phenotypes, as well as evaluating impacts of valvulopathy and pre-existing cardioprotective medications on outcome. Nevertheless, this work echoes prior results that the sepsis patient unable to augment stroke volume will be unable to respond to an acute vasodilatory shock state. Diastology and strain analysis in the ICU patient, in particular septic cardiomyopathy, are areas of active investigation also highlighted at ASE 2025.

In conclusion, the CCE Council is already actively brainstorming and planning content ideas for the 38th Annual ASE Scientific Sessions in 2027. We welcome all ASE members to join with our Council and share ideas for educational pathways and content, not only for future Scientific Sessions, but also toward creating and curating online educational offerings throughout the year. Visit the [CCE Council webpage](#) to connect with the council and learn more!

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Congratulations to the Interventional Echocardiography Council Travel Grant Recipients!

Contributed by **Vinod Kumar Bhojwani, MD**, Tabbha Heart Institute, Karachi, Pakistan; **Malgorzata Maciorowska, MD, PhD**, Military Institute of Medicine, Warsaw, Poland; **Virna Sales, MD, MPH**, Cardiovascular Center Rotenburg Fulda, Hessen, Germany



These grants provide trainees with a deeper understanding of the imaging field and cultivate the development of meaningful mentoring relationships with established imaging faculty.

EVERY YEAR THE ASE Foundation (ASEF) funds Council Travel Grants for trainees to support their attendance at ASE's Annual Scientific Sessions. These grants are part of an ongoing effort by the ASEF and the Council Steering Committees to encourage trainees in cardiovascular specialties to focus on the respective echocardiography subspecialty and to recruit enthusiastic new members to the councils. By facilitating their attendance at the annual meeting, these grants provide trainees with a deeper understanding of the imaging field and cultivate the development of meaningful mentoring relationships with established imaging faculty.

Unlike any other council, all the Interventional Echocardiography (IE) Council's 2025 grant recipients reside outside of North America. ASEF is honored to help support the travel across the world for these fellows to enhance their knowledge of echocardiography. They were asked to share a little bit about themselves as well as their thoughts on attending ASE 2025 in Nashville, Tennessee.



Vinod Kumar Bhojwani, MD

Tabba Heart Institute, Karachi, Pakistan

I work as a fellow in advanced echocardiography/imaging at Tabba Heart Institute. Before this, I was a consultant cardiologist and director of emergency services at Tabba Heart Institute. I left that position with the aim of improving my patient care and improving my vision about my patient disease course to better understand the disease process and to make the best decision about their disease management.

I aimed to gain as much knowledge as possible in such a dynamic field from every perspective including the interventional viewpoint and to get state-of-the-art knowledge and skills. There is not any other forum or scientific sessions other than ASE 2025 where I can gain thought provoking, ambitious knowledge which will foster my information and skills. I expect that ASE 2025 will give me vision after attending the conference and meeting with peers/experts in this field specifically, under one umbrella of ASE.

In advanced echocardiography, I am interested more in Interventional Echocardiography which I saw helping the patient to its end to understand the disease process and treating therapeutically through invasive procedures.

The Scientific Sessions has the potential to have a great impact on my knowledge and practice through gathering scientists, experts, researchers, at one place with presenting their experiences along with innovative techniques, clinical case studies, and recent research findings. To get real-time

I expect that ASE 2025 will give me vision after attending the conference and meeting with peers/experts in this field specifically, under one umbrella of ASE.

Vinod Kumar Bhojwani, MD

presentation of imaging techniques and interpretation strategies, will help bridge the gap between theory and practical application through live practical tips/tricks/procedure. It will also foster collaboration & networking, create opportunities for professional growth, and to meet with peers/experts in the field to grow professionally more.

I specifically planned to see advanced imaging techniques, especially interventional strategies, and to meet with Interventional Echocardiography experts to foster collaboration and increase professional growth in the field and to help my patients more appropriately in advanced and accurate direction.



Malgorzata Maciorowska, MD, PhD

Military Institute of Medicine, Warsaw, Poland

I am a cardiologist working in the Department of Cardiology at the Military Institute of Medicine

National Research Institute in Warsaw, Poland, where I also serve as a senior assistant in the echo lab. My clinical focus is on transthoracic and transesophageal echocardiography, with a particular interest in guiding structural heart interventions. Alongside my clinical practice, I participate in national and international research projects on atrial fibrillation, heart failure, and valvular heart disease.

Since joining ASE, I have found the community and its activities to be invaluable for my professional growth. ASE has offered me access to cutting-edge educational resources, inspiring scientific sessions, and a network of colleagues who share my passion for imaging. The opportunity to learn from leaders in the field and exchange ideas with peers has been a constant source of motivation in both my clinical and research work.

I am honored to have received the 2025 Interventional Echocardiography Council Travel Grant and was truly excited to attend the ASE Scientific Sessions in Nashville. These meetings represent not only a chance to explore the latest innovations but also a place to connect, exchange experiences, and return with new perspectives that will enrich my daily practice and our echo lab in Warsaw.

ASE has offered me access to cutting-edge educational resources, inspiring scientific sessions, and a network of colleagues who share my passion for imaging.

Malgorzata Maciorowska, MD, PhD



Virna Sales, MD, MPH,
Cardiovascular Center Rotenburg
Fulda, Hessen, Germany

I am an American cardiovascular physician-scientist with education and training in both the United States and Germany. I earned my BSc in chemistry from the University of Santo Tomas in Manila, my MD from the University of Heidelberg, and my MPH from the Johns Hopkins Bloomberg School of Public Health.

My academic career has been deeply research oriented. I completed postdoctoral training at Harvard Medical School and clinical research fellowships in cardiac surgery outcomes at Northwestern University's Bluhm Cardiovascular Center and in thoracic surgical outcomes and health economics at the University of Wisconsin–Madison. In 2018, I returned to Germany to resume my clinical training and am now completing my final year of her general cardiology fellowship at the Cardiovascular Center Rotenburg–Fulda.

I have a long-standing research interest in cardiovascular device development, outcomes, and population health studies in transcatheter and surgical valve procedures. Moving back to Germany allowed me to reconnect with her foundational medical education while also expanding my career into a rare transatlantic experience. This global perspective — shaped in part by her public health training at Johns Hopkins — continues to influence my vision as both a clinician and a scientist.

I am honored to be selected for the Interventional Echocardiography (IE) Council Travel Grant to attend the 36th ASE Annual Scientific Sessions in Nashville. “As both an active researcher in outcomes and population health and a cardiology fellow, I am eager to gain knowledge in the rapidly emerging field of interventional echocardiography, particularly in structural heart disease imaging,” she notes. “My immediate goal is to achieve competency in interventional echocardiography, while my long-term vision is to contribute to cardiovascular clinical trials and actively participate in ASE Council activities.”

It is very important to master transthoracic, transesophageal, and advanced 3D/4D imaging during interventions, which are critical to procedural success. The ASE meeting is not only an intensive and rigorous educational experience, but also a chance to connect with mentors, colleagues, and leaders shaping the future of imaging. For me, attending ASE for the first time marks the beginning of a lifetime of learning in interventional echocardiography — one that will shape my growth as a clinician-scientist, strengthen my dedication to patient care, and inspire me to help train the next generation of academic cardiologists.

For me, attending ASE for the first time marks the beginning of a lifetime of learning in interventional echocardiography.

Virna Sales, MD, MPH

The ASE Interventional Echocardiography Council was pleased to welcome three travel grant winners to the ASE 2025 Scientific Sessions in Nashville in September 2025. Left to right: Mary Beth Brady, MD, FASE, IE Council Steering Committee Chair-Elect; Vinod Kumar Bhojwani, MD, Nishath Quader MD, FASE, IE Council Steering Committee Chair; Malgorzata Maciorowska, MD, PhD; and Virna Sales, MD, MPH.



PCHD Council

Updates and New Member Introductions

Contributed by **Elena Kwon, MD, FASE**, Children's Hospital at Montefiore, Bronx, NY; **Kenan Stern, MD, FASE**, Mount Sinai Hospital, New York, NY; **Sujatha Buddhé, MD, MS, MBA, FASE**, Stanford University School of Medicine, Stanford, CA; **Tracy Ralston, RDCS, FASE**, Duke University, Durham, NC.



Thank you to all those who have contributed their time and effort to create these lessons.

AS WE WELCOME the fall and settle into a new academic year, we wanted to take the opportunity to provide an update on what has been quite an eventful year in the Pediatric and Congenital Heart Disease Council.

Adam Dorfman and Laura Mercer-Rosa put on a great show as chair and co-chair of the pediatric section of the ASE 2025 Scientific Sessions in Nashville, Tennessee, in September 2025. The sessions were held three months later than in prior years, and believe it or not, Laura has already started work on next year's meeting!

Shiraz Maskatia and Jen Acevedo assembled an outstanding team of physicians and sonographers from around the world to create a fun, educational and informative virtual conference for the 4th Annual Echo in Pediatric & Congenital Heart Disease: Virtual Experience in June 2025.

More PCHD Microlessons have been released. There are currently five total lessons available covering new topics including tetralogy of Fallot, ventricular septal defects, fetal and 3D echo, double outlet right ventricle, truncus arteriosus, total anomalous pulmonary venous return and hypoplastic left heart syndrome. Thank you to all those who have contributed their time and effort to create these lessons.

Our pediatric and congenital colleagues continue to be recognized for their contributions. This year, Dr. Andrew Powell was awarded the Excellence in Teaching in Pediatrics Award at this year's scientific sessions. Congratulations Andy! It is truly deserved.

We welcome our incoming council chair Pei-Ni Jone. Craig Fleishman assumes his role as past-chair. His calm and steady leadership during a period of incredible growth has been inspiring to us all!

We want to take this opportunity to offer our heartfelt gratitude to our council members rotating off the steering committee. These include Andreea Dragulescu, Daniel Forsha, Shubhika Srivastava, Rebecca Klug and Carolyn Altman. A special thank you to Carrie for her exemplary service as council chair and past-chair, ensuring a seamless transition to Craig, and now Pei-Ni.

And finally, we welcome our newest members to the council. We are happy to have Mark Friedberg (Chair-elect), Nee Khoo (Scientific Sessions co-chair), Robert Tunks (Guidelines and Standards representative) and Shivani Patel (Education representative). Please read on for more information on our newest members-at-large, Sujatha Buddhé and Tracy Ralston.

Sujatha Buddhé, MD, MS, MBA, FASE, is a Clinical Professor of Pediatric Cardiology and Radiology at the Stanford University School of Medicine. She is the Co-Director of Non-Invasive Imaging Research and Associate Echo lab Director. A long-time member of ASE, she is an alumnus of the ASE Leadership Academy. She has served on the ASE board of directors and on various committees, including the IRT and nominations committees. Dr. Buddhé is also the current



President of the Society of Pediatric Echocardiography and holds prominent positions in other national societies. Her research interests include echocardiography and cardiac MRI. In her free time, she enjoys spending time with her husband and three children, Siddhi (14), Shriya (9), and Sohum (8). She also loves traveling, running, and driving her kids to their various activities.

Tracy Ralston, RDCS, FASE, has been a dedicated sonographer at the Duke Children's Pediatric



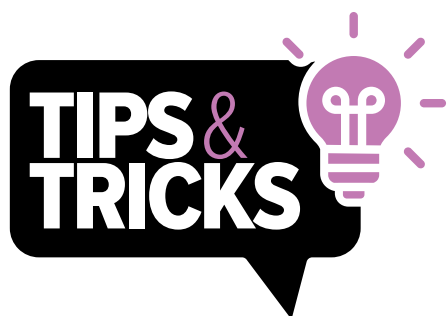
and Congenital Heart Center Echo Lab for over 15 years. Her passion for education shines through in her current role as Education Coordinator, where she has developed the first-year curriculum and competency framework

for incoming fellows and new hires.

Tracy is also a contributing author to the inaugural edition of the *Congenital Echocardiographer's Pocket Reference*, sharing her expertise to support others in the field. Committed to raising awareness about echocardiography, she actively engages with local elementary and high schools, inspiring young students by showcasing the exciting career possibilities in ultrasound.

Her commitment to global health has taken her to León, Nicaragua, where she partnered with cardiologists to provide care for pediatric and adult patients with heart disease. Tracy's love of animals has also influenced her research, co-authoring a study on the impact of therapy dog teams on patient and family satisfaction, as well as the quality of echocardiographic exams.

A proud member of ASE since 2012, Tracy finds great fulfillment working alongside the talented cardiologists and sonographers at Duke Children's Hospital. Outside of work, she enjoys playing and teaching the harp, crafting stained glass windows, and playing tennis.



“Make every detail perfect and limit the number of details to perfect.”

– Jack Dorsey

As congenital cardiac imagers, we appreciate the value of sharing tips and tricks amongst colleagues at our institutions. Considering this, the Pediatric & Congenital Heart Disease Council believes that our section of the Echo magazine may be a great avenue to share our tricks of the congenital cardiac imaging trade with colleagues across the globe. In this article we will focus on clues to Atrial Septal Defect Rim Assessment.

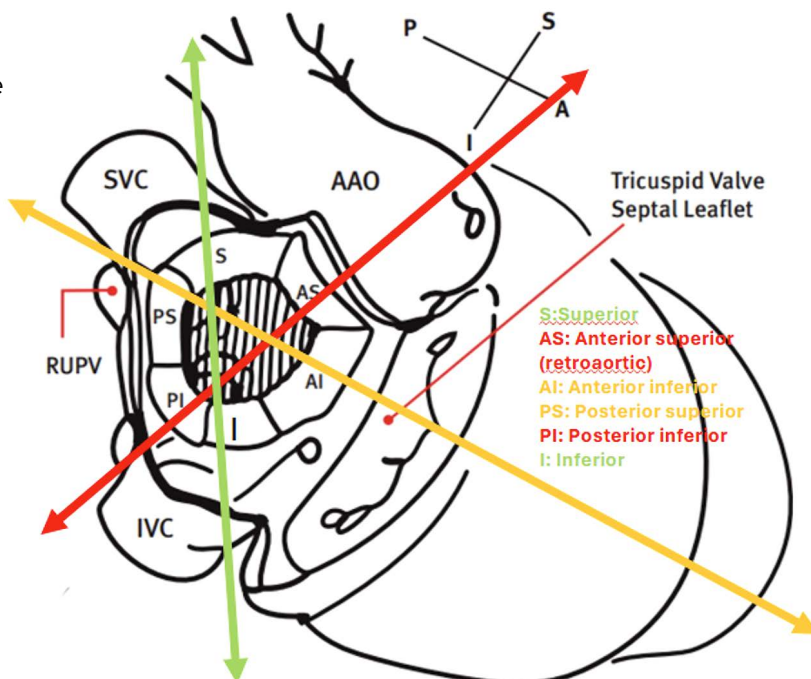


Contributed by **Elena N. Kwon, MD, FASE**,
Children's Hospital at Montefiore, Bronx, NY

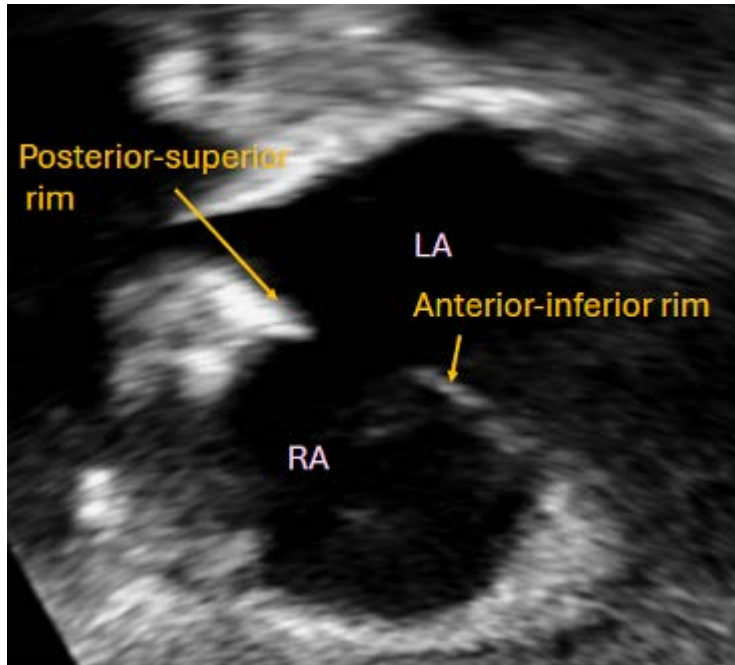
ECHO ATRIAL SEPTAL DEFECT RIM ASSESSMENT

Imaging tips:

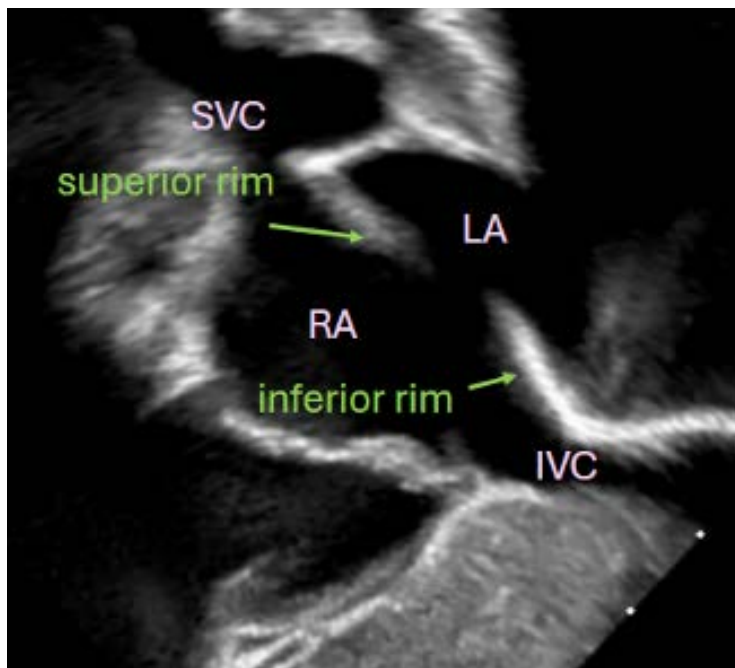
Align the atrial septum as perpendicular to the transducer as possible to see the rims



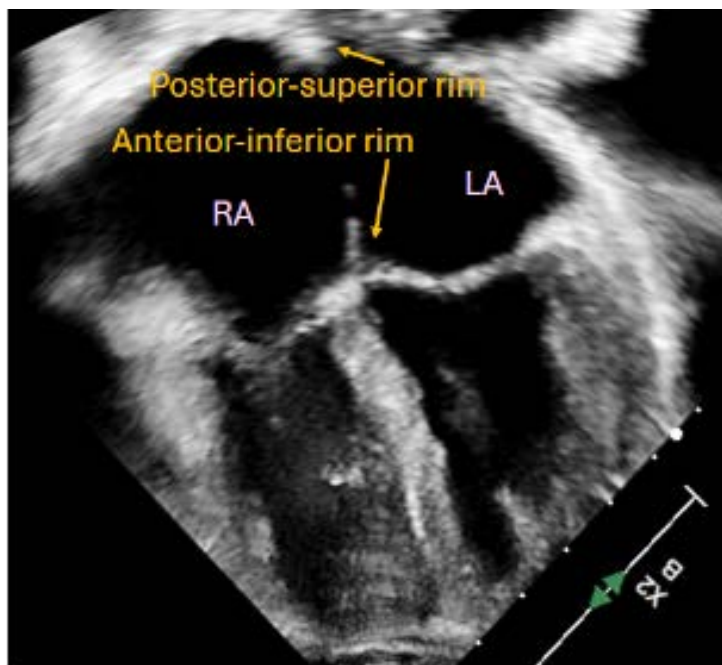
Matthewson JW JASE. 2004 Jan;17(1):62-9.



Subxyphoid Long Axis: (orange arrow plane)
The anterior-inferior and posterior superior rims are seen.

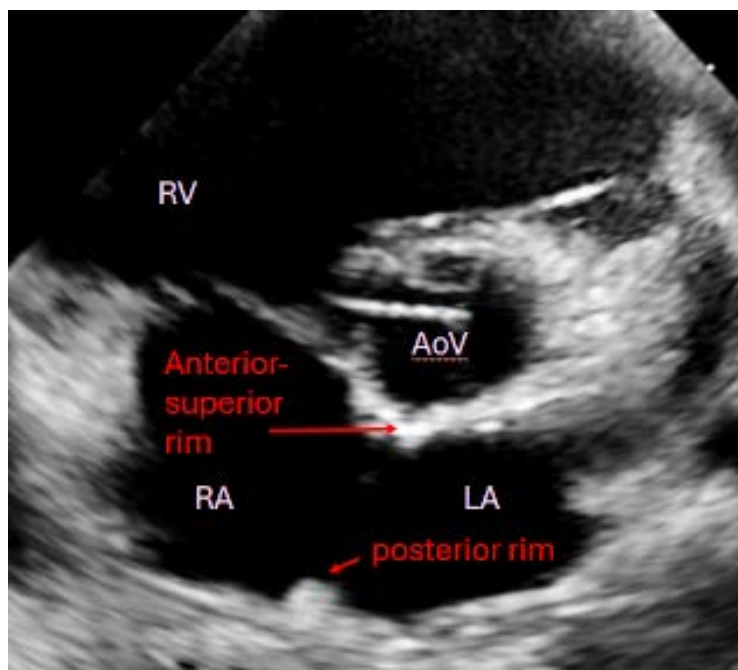


Subxyphoid Short Axis: (green arrow plane)
The superior and inferior rims are seen. Sinus venosus septum is seen sharing the wall with the RUPV.



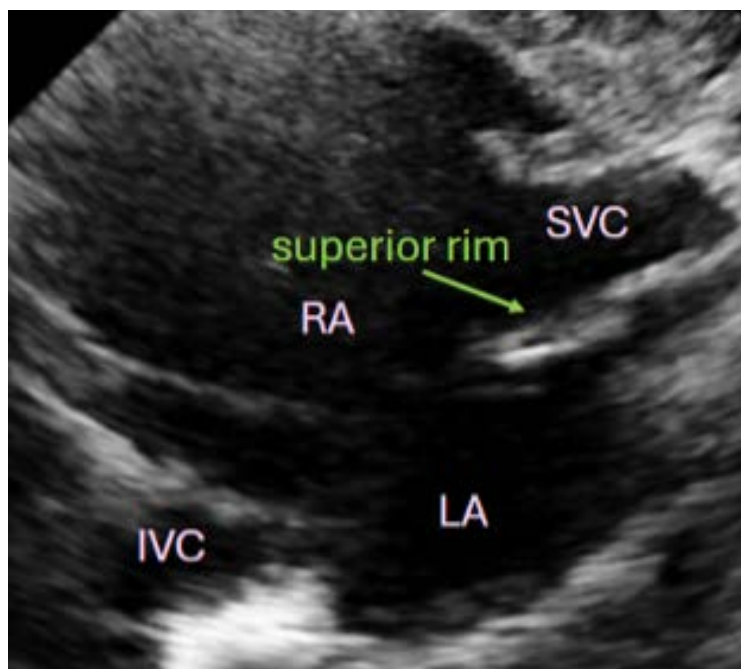
Apical 4-Chamber: (orange arrow plane)

Same rims as subxyphoid long axis. Same rims seen on TEE 4-chamber at 0°. Good for measuring total septal length.



Parasternal Short Axis: (red arrow plane)

Best view for retroaortic (anterior-superior) rim, same rims seen by TEE at 45°



High right parasternal view: (green arrow plane)
Same rims as subxyphoid short axis, same rims seen by TEE bicaval view $\sim 110^\circ$

Belonging Begins Here: A Roadmap to Involvement in the Council on Perioperative Echocardiography

Contributed by **Richard Sheu, MD, FASE**, University of Washington Medical Center, Seattle, WA; **Xiu Tang, ACS, RDCS, FASE**, Stanford Healthcare, Palo Alto, CA; **Eric Lineburger, MD, MSc, PhD, TSA, FASE**, Hospital Sao Jose, Aracaju, Brazil



The Council on Perioperative Echocardiography (COPE) was established to create a community for individuals interested in this specialized field, regardless of their professional background or level of experience.

PERIOPERATIVE ECHOCARDIOGRAPHY shares many similarities with conventional echocardiography, yet possesses distinct characteristics in terms of study focus, clinical setting, personnel, and logistical considerations. The Council on Perioperative Echocardiography (COPE) was established to create a community for individuals interested in this specialized field, regardless of their professional background or level of experience. While cardiothoracic anesthesiologists often naturally identify with COPE, the council's leadership has made a deliberate effort to recruit members from a diverse range of disciplines, including cardiothoracic surgeons, echo lab directors, interventional echocardiographers, etc. The current council roster reflects this commitment, exemplifying our dedication to fostering an inclusive and supportive environment for all.

We are excited to introduce and interview two of our newest COPE Steering Committee members-at-large and learn how they got involved with the council as a sonographer and an international ASE member:



**Xiu Tang,
ACS, RDCS, FASE**

Participating in COPE allows me, as a lead sonographer and educator, to directly influence the quality and direction of perioperative echocardiography standards

Q. How did you first hear about the COPE Council?

A. I first heard about the council from one of the previous COPE chairs, Dr. Sheela Pai Cole. I was doing an LVAD RAMP procedure with Dr. Pai Cole one day. After the study, she asked me if I was interested in becoming a COPE Council member. I answered, "Isn't peri-operative echocardiography all about TEE? Sonographers at Stanford are not allowed to do TEEs." She laughed at me and said, "The LVAD RAMP that you just did with me is considered peri-operative echocardiography!" I then asked her, "To my knowledge, only MDs can become Council members except the Sonographer Council. I am a sonographer; I have no expertise in this area". She patiently explained to me that sonographers have always been working on developing perioperative echocardiographic protocols, optimizing workflow for efficiency, collaborating with various care teams, and providing quality exams, all of which are integral for surgical patients and perioperative care. It's a misconception that our work as sonographers have no bearing in the perioperative realm.

Q. What steps did you take to become a member of COPE Council Steering Committee?

A. I went to the ASE webpage and read up on the relevant information about the COPE Council Steering Committee and familiarized myself with what it means to be a perioperative echocardiographer. I then summarized what I

have achieved in this field, what I can contribute to this field, and what I could gain from becoming a member of COPE steering committee. The actual application process was very easy; I simply followed the application process on the ASE Portal. Honestly, the hardest step was convincing myself that a sonographer does have a role in the COPE council steering committee!

Q. How has being a member of this group impacted your professional development?

A. Participating in COPE allows me, as a lead sonographer and educator, to directly influence the quality and direction of perioperative echocardiography standards, thereby contributing to improved patient care through up-to-date best practices. A few of my key reasons to participate are 1) stay current with the latest advancements, 2) shape the future of echocardiography, 3) share expertise, 4) network with peers, and 5) leadership development.

Q. What advice would you give to someone new who's just joined or is thinking about joining?

A. Whether you are a sonographer or just someone curious about the perioperative world, come join our council and join me! Working in a multidisciplinary team, there are endless opportunities to learn and sharpen our clinical skills. The perioperative world is very fascinating, and it needs you, me, and many more likeminded individuals to help advance it!



**Eric Lineburger,
MD, MSc, PhD,
TSA, FASE**

Q: What initially drew you to the COPE Council?

A: As someone deeply engaged in perioperative echocardiography and cardiovascular anesthesia, I've always believed in the power of international collaboration to elevate clinical practice, education, and research. COPE embodies this spirit by connecting educators, innovators, and advocates who share a commitment to improving patient care. Joining COPE felt like a natural step to both learn from and contribute to a community that has shaped some of the most impactful developments in echocardiography worldwide.

Q: How did you learn what the group had to offer before committing?

A: I had been following ASE's initiatives for many years, especially those focused on global outreach and education. Through webinars, publications, and contact with international colleagues, I recognized the significant role COPE played in building bridges between institutions and professionals committed to echocardiography advancement. I also saw how COPE encouraged collaboration between anesthesiologists and cardiologists in ways that reflected my own local efforts, making it clear this was a space where I could grow, contribute, and help strengthen those global connections.

Q: What has been the most valuable part of your membership in COPE so far?

A: COPE has given me the opportunity to connect our national initiatives with ASE's

global mission to advance cardiovascular ultrasound through excellence in education, innovation, and advocacy.

In 2011, the ETTI (Working Group on Transthoracic and Transesophageal Echocardiography in the Intraoperative, established within the Brazilian Society of Anesthesiology – SBA) was created to promote the use of intraoperative echocardiography. Through its courses, congress activities, and academic engagement, it has stimulated hundreds of anesthesiologists across Brazil to seek deeper training in perioperative echocardiography, helping integrate this valuable tool into everyday practice.

In 2018, we co-authored the first Brazilian consensus on perioperative transesophageal echocardiography, in collaboration with the Cardiovascular Imaging Department of the Brazilian Society of Cardiology. That same year, we published a book on intraoperative TTE and TEE, written for anesthesiologists and distributed by the SBA to its members, providing structured and accessible educational material nationwide.

In 2024, the SBA launched NETTI (Nucleus of Intraoperative Transthoracic and Transesophageal Echocardiography), created to organize and promote the certification pathway in perioperative echocardiography. And in 2025, we released the first official call for applications for the TETTI (Title in Intraoperative Transthoracic and Transesophageal Echocardiography), a milestone for our specialty in Brazil. We hope this advancement will also encourage the development of similar standards in other Latin American countries, where the technique can significantly improve perioperative safety.

Being part of COPE has allowed me to share this journey, engage in meaningful exchange with international colleagues, and contribute to a broader vision of collaborative progress in echocardiography education and practice.

In conclusion, COPE is more than just a council—it is a dynamic platform for cross-country collaboration, knowledge exchange, and professional growth. By welcoming diverse perspectives and valuing contributions from around the globe, COPE fosters a rich environment where members can share ideas, learn from one another, and contribute their own local expertise. It is a space where education, advocacy, and innovation intersect, enabling us to work together toward advancing patient care and promoting echocardiographic excellence worldwide.

NEW ASE GUIDELINES TO STANDARDIZE ADULT ECHOCARDIOGRAPHY REPORTING



Contributed by **Cynthia C. Taub, MD, FASE, MD, MBA, FASE**, ASE President-elect and Chair and Professor of Medicine at SUNY Upstate Medical University, Syracuse, New York and **Raymond F. Stainback, MD, FASE, ASE** Past President and Former Chief, Non-invasive Cardiology, The Texas Heart Institute at Baylor St. Luke's Medical Center, Assoc. Professor of Medicine, Baylor College of Medicine, Houston, Texas

ASE's recently published *Guidelines for the Standardization of Adult Echocardiography Reporting: Recommendations from the American Society of Echocardiography*¹ begin with historical perspective. In 1998, Dr. Richard Kerber, then president of the ASE, convened a task force "to develop recommendations for a standardized report for adult transthoracic echocardiography (TTE) to improve the quality of echocardiography practice." The specific goals of the resultant 2002 report² were that standardized reporting should promote quality by:

1. Defining the core of measurements and statements that constitute the report,
2. Encouraging the comparison of serial echocardiograms performed in patients at the same site or different sites,

3. Improving communication by expediting the development of structured report form software and,
4. Facilitating multicenter research and analyses of cost-effectiveness.

The ASE's 2002 TTE reporting standards guideline heralded the end of an era in which echocardiography reports were typed or even handwritten and encouraged the development of computerized reporting tools during the dawning of a digital information age. We are now practicing in a dramatically transformed time of integrated electronic health information systems, shaped by the rapid evolution of artificial intelligence. Our writing team agreed that the four fundamental objectives, above, remain valid. However, the 23-year-old 2002 TTE reporting guidelines lack the detail and clarity required for today's echo lab operations. In addition to TTE, the new reporting standards include transesophageal echo (TEE), stress echocardiography (SE) and the many forms of echo reporting related to physiological maneuvers, mechanical circulatory support and the incorporation of simple adult congenital heart disease.

In 2008, ASE President Dr. William Zoghbi commissioned a task force to explore quality aspects of echocardiography lab operations. The resultant 2011 ASE publication: *Recommendations for Quality Echocardiography Laboratory Operations*³ produced a multifaceted echo lab framework including facility, equipment, personnel, various aspects of the imaging process, interpretation and *reporting*, and the presence of a continuous quality

improvement process. The ASE's new 2025 reporting standards guideline updates only the reporting section of the 2011 Quality Echo Lab Operations document.

In addition to adhering to the four goals mentioned above, the writing team agreed that report recommendations should meet 4 criteria: to improve completeness, conciseness, correctness and clinical utility (4 C's).

1. **Completeness** – including all essential data and interpretations.
2. **Conciseness** – clear communication without excessive verbosity.
3. **Correctness** – accuracy of both measurements and interpretations.
4. **Clinical utility** – reports must inform and guide patient care

Scope: The new reporting standards guidelines were developed for adult intersocietal accreditation commission (IAC)-certified laboratories performing consultative TTE, TEE and stress echo exams. The reporting guidelines do not address when or how to perform or interpret echocardiograms. We addressed the reporting phase of echocardiography to provide clarity in translating exam results into clinical decision making. NOT included are reporting standards for pediatric, comprehensive congenital, veterinary or point-of-care ultrasound (POCUS) exams. However, the intent is that all users of cardiovascular ultrasound will find the recommendations useful.

Developing consensus: Members of the writing committee included physicians and sonographers with leadership experience in compre-

We are now practicing in a dramatically transformed time of integrated electronic health information systems, shaped by the rapid evolution of artificial intelligence.

hensive adult echocardiography, multimodality imaging, congenital heart disease, health informatics, artificial intelligence, cardiac imaging registry development, echo core labs (including NIH representation) and lab accreditation. Prior to publication, a 21-day public comment period was used to obtain feedback from diverse stakeholders, including ASE members, other professional cardiac societies, industry and health system partners to ensure diverse perspectives.

This ASE guideline is unique in that it has no illustrations. However, the numerous tables provide much of the practical value. They codify measurements, stylistic “dos and don’ts,” abbreviations, and structural expectations and other details with more granularity than has been previously published. The following are some key highlights from the tables.



TABLE 2
Recommended Abbreviation.

For the past two decades, many have written about the proliferation and misuse of cardiovascular medicine abbreviations. When abbreviations appear in medical reports with conflicting and discrepant definitions, this can pose patient safety risks, create misinformation and hinder the ability for artificial intelligence algorithms and even patients or referring physicians to correctly interpret the clinical history and findings. Table 2 lists 119 recommended abbreviations. Table 3 lists abbreviations to avoid. An interesting facet of our guideline is that our evaluation of abbreviations, with the help of a notable linguist, resulted in a separate February 2025 publication.⁴ We analyzed abbreviations from 114 clinical practice guidelines published by seven leading cardiology and cardiovascular imaging societies over six years and discovered 12.7% of 1,782 unique abbreviations had more than one meaning. A discrepancy matrix demonstrated how abbreviation usage varied within and amongst the organizations. Several commonly used abbreviations had three to five different meanings. This information guided our abbreviations tables.



TABLE 1
Stylistic Dos and Don'ts.

There was agreement that laboratories should have flexibility and not dictums when it comes to clearly describing normal and abnormal cardiac structure and function. Encouraged are simple sentences and phrases that avoid excessively “teachy” or wordy statements can interfere with comprehension particularly by non-echocardiographers. Also encouraged is the avoidance of colloquial descriptions, jargon and arcane language unlikely to be understood by non-cardiologists or non-physicians. In general, “Vocabulary and terminology that adhere to existing guidelines should be favored, and consistent laboratory-specific terminology should be utilized when a universal nomenclature is not available.”



TABLE 5
Reporting standards assumptions.

This table is a reminder for the document’s scope of work and shortens the document’s length by including familiar report header and demographic information in a concise check list. Much of the table will be quite familiar. The guideline updates recommendations for gender, race and ethnicity demographic fields since these variables have increasingly been validated as clinically important and essential for health registry data analysis. From a quality improvement standpoint, exam turnaround times can only be determined when discrete fields are in place for date and time of order placement, exam completion and report finalization. More can be learned and interpreted when both the imaging platform and transducer makes and models are known.



TABLE 6
Measurement dictionary.

This table responds to the current variability amongst commercially available reporting tools with regards to echocardiographic measurement names and their abbreviations. For the first time, we have recommended standards for newer echo measurements derived from guidelines related to structural heart disease and for mechanical circulatory support device measurements. Another “first” is the inclusion of the suggested degree of precision for each measurement (suggested number of decimal places) since a reported measurement’s accuracy should not exceed the measuring device’s accuracy. For some, it could be confusing that the “aortic root” measurement has not been included. The aortic root is the aortic segment between the aortic annulus and the aortic sinotubular junction, and its length is not a standard echo measurement. Included aortic root components are aortic annulus, aortic root sinus of Valsalva and the aortic sinotubular junction dimensions.

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You can purchase the ASE 2025 Online Library to hear a presentation about this guideline and also have access to 85 other sessions too!

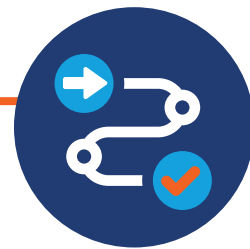


TABLE 9
Select descriptors.

Echocardiography provides excellent temporal and spatial resolution of normal and abnormal cardiovascular structures, enabling an immense variety of possible descriptions that can be diagnostically critical. Without standardized descriptions, there can be a tendency to *ad-lib*, leading to reporting variability across and within labs. A standardized descriptor library may improve consistency and more accurate linkage to certain pathologies, particularly when incorporated into validated registry data.

We have only provided a select overview of certain reporting elements. Additional tables summarize structured reporting expectations for comprehensive TTE vs TEE, Stress Echo descriptors, critical or urgent findings, integration of simple adult congenital heart disease and comparisons with prior exams. The document further defines and clarifies the fact that *draft reports* (a new term) may be produced by sonographers or trainees, although draft reports should not be released by the lab or used for clinical decision-making. There are two categories of reports that may be released by the interpreting physician for clinical decision-making – a preliminary report (used in some cases) and the finalized report.

The ASE reporting standards are derived from ASE’s current portfolio of clinical practice guidelines. Therefore, a crosswalk between this guideline and the others should not generally be necessary, although some small inconsistencies may be discovered. Some confusion can occur when it comes to understanding interactions between the ASE and the IAC. The IAC is a separate independent accreditation organization that publishes echo lab accreditation “standards.” Because the IAC’s echo standards are derived from the ASE’s guidelines, IAC standards related to echo reporting will evolve. Importantly, there is no mandated timeline for implementation of these new reporting recommendations as resources vary amongst institutions and across our international partners. Nevertheless, the hope is that all users of cardiovascular ultrasound will benefit from the clarity these new recommendations provide—advancing the four overarching goals through adherence to the 4 C’s noted in the introduction.

The Expanding Role of Certified Registered Nurse Anesthetists in Perioperative Focused Cardiac Ultrasound: **EDUCATION, IMPLEMENTATION, AND IMPACT**

Point of care ultrasound (POCUS) has revolutionized perioperative care, offering rapid, bedside diagnostic capabilities that enhance patient safety and clinical decision-making. Among its most impactful applications is focused cardiac ultrasound (FOCUS), a streamlined transthoracic echocardiography (TTE) protocol designed to answer clinical questions in real time.^{1,2} Certified Registered Nurse Anesthetists (CRNAs) are now at the forefront of its perioperative use. This transformation is driven by evolving educational standards, competency training, and the increasing value of FOCUS in crisis management.



Contributed by **Mark Gabot, DNP, CRNA, FAANA**,
Academic and Clinical Faculty, Kaiser Permanente
School of Anesthesia, Pasadena, CA and ASE
POCUS SIG Leadership Team Advanced Practice
Provider Representative



Perioperative FOCUS

Identifying and managing patients at risk for cardiopulmonary disease is a cornerstone of preoperative evaluation. Conditions such as myocardial ischemia, valvular heart disease, and ventricular hypertrophy are common culprits of perioperative morbidity and mortality. If these pathologies go undetected during physical assessments, the risk of adverse events in the operating room and beyond increases.

FOCUS addresses this gap by providing a rapid, binary approach to cardiac assessment.^{1,2} With a limited set of views, clinicians can quickly detect or rule out pericardial effusion, severe ventricular dysfunction, regional wall motion abnormalities suggestive of coronary artery disease, gross valvular

The ability of
FOCUS to provide
immediate,
actionable
information makes
it an essential tool
for high-risk patients
and time-sensitive
clinical scenarios.

pathology, and assess the inferior vena cava for volume status.³ These findings can fundamentally alter perioperative management, prompting enhanced monitoring, changes in anesthetic technique, or even postponing surgery for further evaluation. The ability of FOCUS to provide immediate, actionable information makes it an essential tool for high-risk patients and time-sensitive clinical scenarios.

Educational Standards

Recognizing the importance of POCUS, the Council on Accreditation (COA) of Nurse Anesthesia Educational Programs has set new standards for graduate nurse anesthesia programs. All accredited programs are mandated to track actual and simulated POCUS experiences for each student.⁴ This

ensures that every graduate enters practice with foundational competency in POCUS and that the next generation of CRNAs is equipped to meet the evolving demands of perioperative care.

Building Competency

Skill scaffolding is a pedagogical strategy that structures learning in progressive, achievable steps.⁶ Perioperative FOCUS may begin with didactic ultrasound physics and cardiac anatomy instruction, followed by supervised scanning of healthy volunteers. As proficiency grows, learners advance to simulated pathology and, ultimately, to independent scanning during actual perioperative cases. This graduated approach not only builds technical skill but also nurtures clinical reasoning.⁶ By correlating ultrasound findings with hemodynamic data, physical examination, and patient history, CRNAs develop the integrative thinking essential for high-stakes perioperative care.³

Simulation-Based Learning

Simulation is the cornerstone of POCUS education for CRNAs. High-fidelity simulators allow learners to practice FOCUS image acquisition and interpretation in a risk-free environment. Scenarios can be tailored to replicate perioperative crises, such as acute right ventricular failure or cardiac tamponade, enabling learners to integrate ultrasound findings into rapid decision-making. Structured debriefing and expert feedback accelerate skill acquisition and foster clinical confidence.

Objective Structured Clinical Examination (OSCE)

The Objective Structured Clinical

Despite
its promise,
CRNAs face
challenges in
integrating
perioperative FOCUS.
These include
variability in
training and the
need for ongoing
competency
assessment.

Examination (OSCE) is a validated method for assessing both technical and cognitive aspects of POCUS proficiency.⁵ In FOCUS OSCEs, students must demonstrate their ability to obtain standard cardiac windows, recognize key pathologies, and apply findings to clinical scenarios. This standardized assessment ensures a baseline of competency before independent clinical practice, aligning with institutional credentialing and privileging requirements.

Clinical Exposure

The proliferation of portable, handheld ultrasound devices has democratized access to POCUS. CRNAs can perform FOCUS at the bedside, integrating findings into perioperative management.

Early clinical exposure, guided by experienced mentors, bridges the gap between simulation and real-world application. This hands-on experience is critical for developing pattern recognition, troubleshooting suboptimal images, and appreciating the nuances of dynamic perioperative physiology.

Crisis Management

The true value of FOCUS emerges in the context of crisis management, often termed rescue FOCUS. In perioperative emergencies, such as unexplained hypotension, hypoxemia, or cardiac arrest, CRNAs equipped with TTE can rapidly differentiate causes (e.g., tamponade vs. hypovolemia vs. ventricular dysfunction) and guide targeted interventions.^{2,7} By embedding POCUS into established crisis algorithms, FOCUS-competent CRNAs become pivotal members of the perioperative response team, ensuring that ultrasound findings translate into timely, effective action.⁸

Quality Assurance

Despite its promise, CRNAs face challenges in integrating perioperative FOCUS. These include variability in training and the need for ongoing competency assessment.^{2,4} Addressing these barriers requires:

1. **Standardized Curriculum:** Evidence-based educational frameworks should define core competencies, curriculum standards, and learning objectives. These are informed by professional societies such as the American Association of Nurse Anesthesiology (AANA) and formally established by accrediting bodies like the COA.
2. **Credentialing and Privileging:** Institutions must establish clear



pathways for CRNAs to obtain and maintain privileges in perioperative TTE.

3. **Mentorship and Coaching:** Ongoing support from experienced perioperative echocardiographers, including sonographers and physicians, ensures quality and fosters a culture of continuous improvement. Regular image review, peer feedback, and participation in multidisciplinary case conferences promote high standards of care.

As the use of FOCUS continues to expand, CRNAs are encouraged to deepen their involvement by joining the American Society of Echocardiography's Specialty Interest Groups (SIGs). Collaboration within groups such as the Emerging Echo Enthusiasts (E3) and the Point-of-Care Ultrasound SIG fosters professional growth,

interdisciplinary engagement, and meaningful mentorship.⁹ These communities offer valuable resources, educational opportunities, and a platform to shape the future of echocardiographic practice in the perioperative setting.

Conclusion

The integration of perioperative-focused cardiac ultrasound by CRNAs represents a significant advance in patient-centered care. CRNAs are poised to make meaningful contributions to perioperative diagnosis and crisis management through simulation-based learning, structured assessment, real-world exposure, and skill scaffolding. Embracing and supporting this evolution will strengthen the multidisciplinary fabric of perioperative medicine and, most importantly, improve our patients' safety and quality of care.

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RECOGNITION of an ESOPHAGEAL STENT on TRANSTHORACIC ECHOCARDIOGRAM



Contributed by
Corey Smith, DO,

General Cardiology Fellow,
Medical College of Georgia,
Augusta, GA;

Gyanendra Sharma, MD, FASE,
Medical Director,
Echocardiography Laboratory,
Medical College of Georgia,
Augusta, GA; and

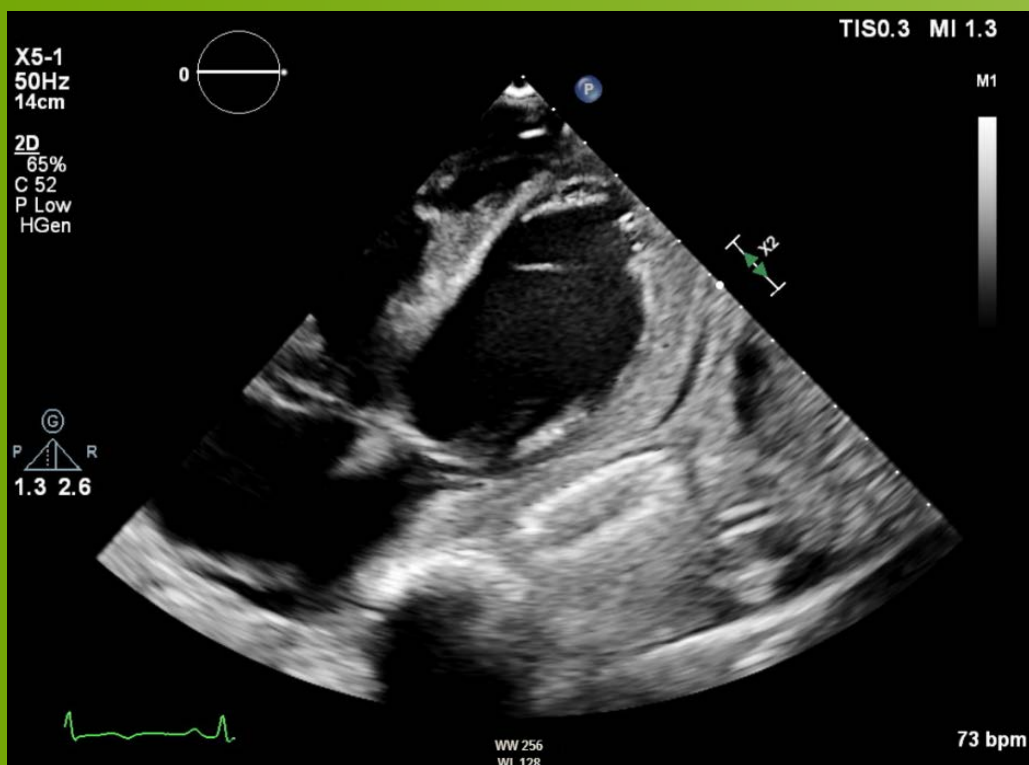
Lindsey Couture RCS, RDCS, ACS

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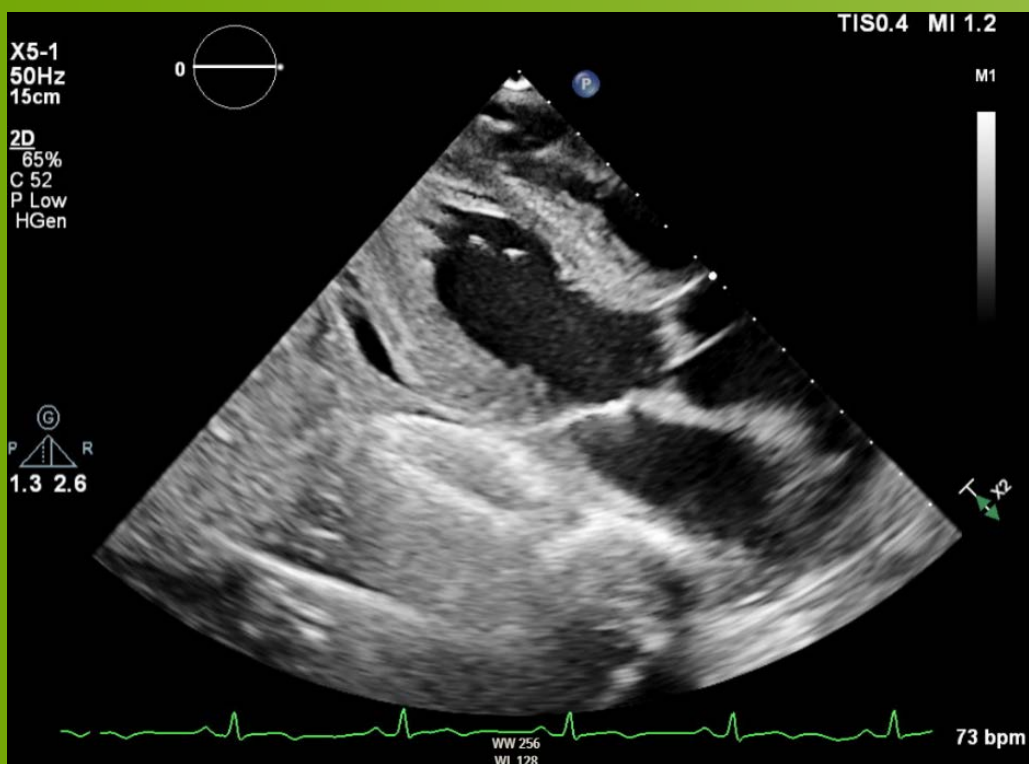
transthoracic echocardiogram (TTE) frequently visualizes implanted objects that must be recognized by echo readers, such as pacemaker leads, surgical clips, and nasogastric tubes. One object of particular interest is an esophageal stent, which is not frequently addressed in medical literature as it pertains to echocardiography. Esoph-

ageal stents are now used more frequently for a variety of clinical conditions, such as strictures or esophageal cancer.¹ In general, the esophagus is not well visualized on TTE as it is typically obscured by overlying cardiac and mediastinal structures.² Let's say for example that images 1 and 2 are obtained in your Echo lab.

Images 1 and 2 display off-axis apical and parasternal views (respectively) which visualize an esophageal stent, recognized by its nitinol meshwork, as it progresses posterior to the lateral wall of the left ventricle. Note its position in relationship to adjacent structures e.g. the descending thoracic aorta. Further confirmation of an esophageal stent can be obtained by having the patient ingest a carbonated beverage, followed by visualizing the bubbles within the stent on TTE.³ TTE may visualize complications related to the stent, including stent migration, pericardial effusion from stent erosion, or extrinsic compression on the cardiac structures which may require consultation from our Gastroenterology and Thoracic Surgery colleagues.^{2,4}

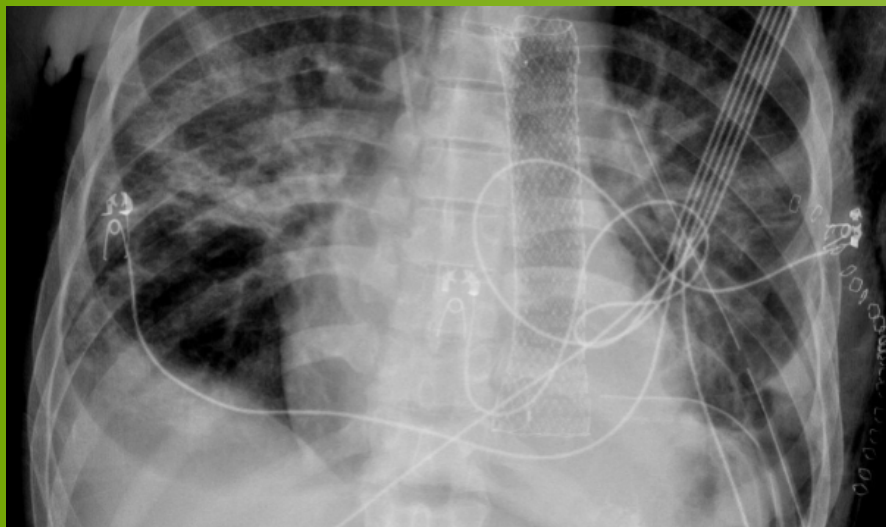


◀ **IMAGE 1**
 Off-Axis Apical
 Image of an
 Esophageal Stent

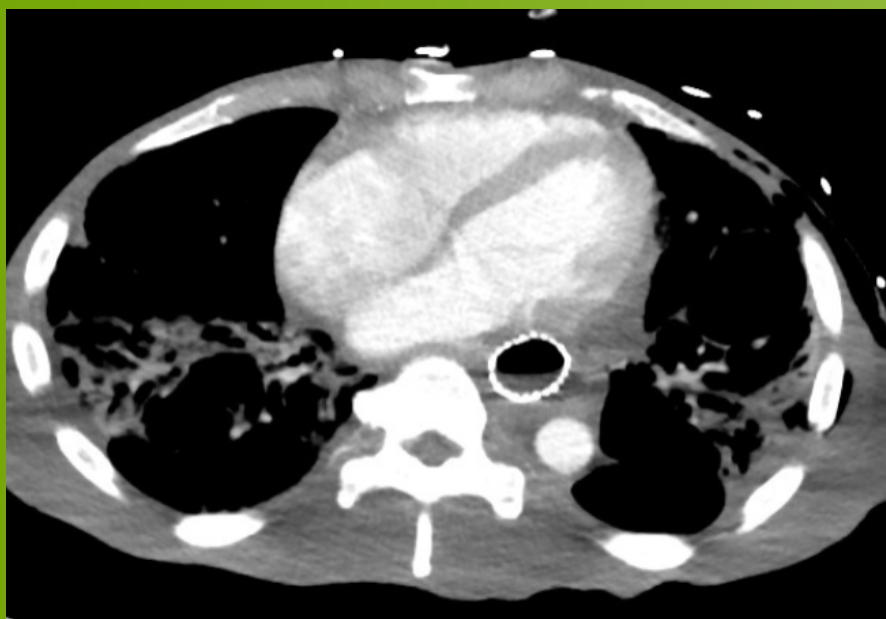


◀ **IMAGE 2**
 Off-Axis Parasternal
 Image of an
 Esophageal Stent

Images 3 and 4 provide radiographic correlation with the TTE image. An esophageal stent can impact future diagnostic studies, e.g. transesophageal echocardiography or endoscopy. Recognition of an esophageal stent is an opportunity to prevent harm, detect pathology, and collaborate across specialties.



◀ **IMAGE 3**
Plain Radiograph
Visualizing the
Esophageal Stent



◀ **IMAGE 4**
CT Axial Image
Visualizing the
Esophageal Stent

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POCUS IN THE DIAGNOSIS OF ACUTE HEART FAILURE: WHERE WE STAND TODAY

Point-of-care ultrasound (POCUS) is increasingly utilized in the diagnosis and treatment of various medical and surgical conditions in both emergent and non-emergent situations across all medical disciplines. With the increasing number of training programs adapting to this, many have successfully incorporated focused ultrasound in their educational curriculum, which can help residents make real-time decisions, especially in emergency settings. Dyspnea is one of the common presentations, and POCUS can readily assist in discerning the etiology.¹ One of the key areas for clinical decision-making is determining volume status and finding the etiology of shortness of breath in the emergency



Contributed by **Apurva Popat, MD**, Cardiovascular Disease Fellow, Department of Cardiology, Marshfield Clinic, WI; **M Haseeb Zubair, MD**, Cardiovascular Anesthesiologist, Department of Anesthesiology, Marshfield Clinic, WI; and **Ateeq Rehman, MD**, Program director of the Internal Medicine residency and a Testamur of Advanced Critical Care Echocardiography, Department of Internal Medicine, Marshfield Clinic, WI

POCUS-Based Diagnostic Algorithm for Acute Heart Failure (AHF)

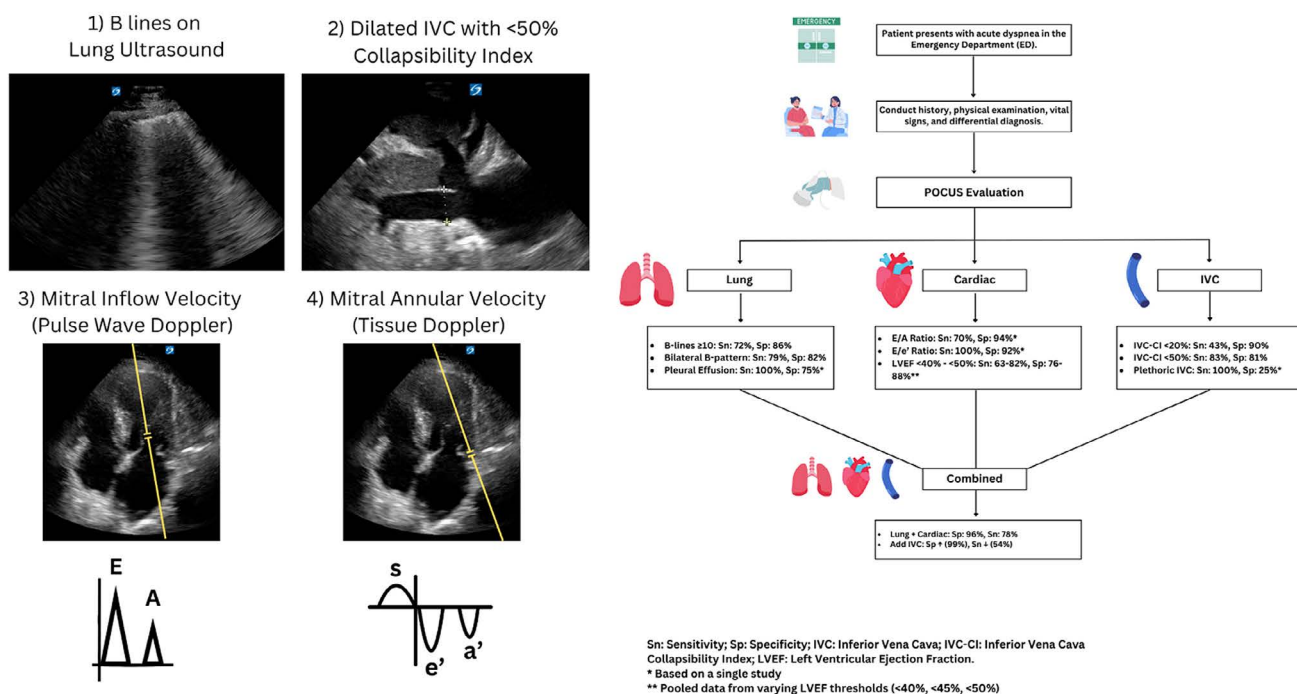


FIGURE 1. Multiorgan POCUS Algorithm for Diagnosing Acute Heart Failure (Adapted from Popat A et al., Journal of Cardiology, 2025).

department and in critical care scenarios. For novice learners, using IVC assessment can be a preferred method for evaluating volume status. However, it has its own pitfalls and limitations, and its findings should be considered in the context of clinical practice. We aimed to optimize the POCUS algorithm for rapid and reliable detection of acute heart failure at the bedside. We conducted a meta-analysis of 15 studies encompassing 2,751 patients with dyspnea. We analyzed the diagnostic accuracy of lung, cardiac, and IVC POCUS, both individually and in combination. In addition to the traditional focused lung and IVC examinations commonly used in emergency medicine and critical care, we incorporated advanced cardiac parameters, such as E/e' and E/A, into our bedside analysis.

In the lung POCUS: Bilateral B-patterns in two or more zones yielded a sensitivity of 79% and specificity of 82%. A B-line threshold of ≥ 10

had slightly lower sensitivity (72%) but higher specificity (86%). Pleural effusion, when present, reached 100% sensitivity in a single study, albeit with lower specificity (75%). These results support the use of lung POCUS as a rapid screening tool for detecting pulmonary congestion.²

Cardiac POCUS offered additional clarity, particularly when evaluating left ventricular filling pressures and systolic function. The mitral inflow E/A ratio had a pooled sensitivity of 70% and specificity of 94%, while the E/e' ratio—reflecting diastolic pressure—achieved 100% sensitivity and 92% specificity in one high-quality study.³ Left ventricular ejection fraction (LVEF) assessments, using thresholds ranging from <40% to <50%, demonstrated sensitivities between 63% and 82% and specificities of up to 88%. Even basic apical four-chamber views, when interpreted within a physiologic framework, can provide meaningful diagnostic insight at the bedside.

IVC ultrasound played a more supportive role. An IVC collapsibility index (IVC-CI) of <20% demonstrated 90% specificity but only 43% sensitivity. A less stringent threshold of <50% resulted in an improved sensitivity to 83%, with a specificity of 81%. Notably, a plethoric IVC had 100% sensitivity but only 25% specificity. These findings suggest that while IVC POCUS may help confirm AHF in fluid-overloaded patients, it should not be used in isolation to rule it out. Its most significant value lies in integration with lung and cardiac findings.

The real strength of POCUS became apparent when these modalities were combined. Lung and cardiac ultrasound together yielded a sensitivity of 78% and a specificity of 96%. When IVC imaging was introduced, specificity increased to 99%, while sensitivity decreased to 54%. These results

outperforms traditional diagnostic strategies that do not include ultrasound in critical care and non-critical care settings.⁴

Educators can equip trainees with focused cardiac and pulmonary scanning skills that translate directly to improved diagnostic accuracy. While operator variability, image quality, and interobserver agreement remain ongoing challenges, POCUS continues to evolve. The potential of artificial intelligence in echocardiography, as recognized by the American Heart Association, has been a significant aid in problem-solving, image optimization, and interpretation in point-of-care ultrasound and echocardiography.⁵ AI-assisted image interpretation, standardized acquisition pathways, and simulation-based training not only democratize its use but also pave the way for exciting future advancements in POCUS.

AI-assisted image interpretation, standardized acquisition pathways, and simulation-based training not only democratize its use but also pave the way for exciting future advancements in POCUS.

underscore the importance of a tiered, multiorgan approach: start with lung imaging, add cardiac ultrasound for hemodynamic insight, and incorporate IVC evaluation selectively to enhance diagnostic confidence. This comprehensive approach, with POCUS at its core, is illustrated in our graphical abstract (*Figure 1*), which outlines a structured diagnostic pathway based on data from the meta-analysis. The use of POCUS significantly enhances diagnostic confidence, reassuring healthcare professionals in their decision-making process.

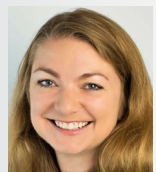
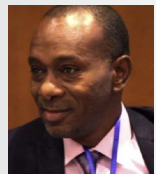
POCUS plays an instrumental role in the diagnosis of acute heart failure in critical care and emergency settings. LUS is more accurate than chest radiography and natriuretic peptide testing for the diagnosis of pulmonary oedema. The presence of B lines on LUS through POCUS is an independent predictor of acute heart failure, and when compared with clinical assessments, POCUS

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Beyond the Probe: Human Connection and Clinical Impact in Senegal

In June 2025, a team from the ASE Foundation partnered with the Société Sénégalaise de Cardiologie (SOSECAR) for a week-long education and screening initiative in Guédiawaye, Senegal. The shared goal: large-scale echocardiographic screening for rheumatic heart disease (RHD) among school-aged children — a condition still silently affecting young hearts in many parts of the world.



Warner Mampuya, MD, PhD, Sherbrooke University Hospital Center, Sherbrooke, QC, Canada

Fatou Aw Leye, MD, PhD, Université Cheikh Anta Diop de Dakar, Dakar, Senegal

Abdoul Kane, MD, Université Cheikh Anta Diop de Dakar, Dakar, Senegal

Ngone Diaba Gaye, MD, Université Cheikh Anta Diop de Dakar, Dakar, Senegal

Cynthia Taub, MBA, MD, FASE, SUNY Upstate Medical University, Syracuse, New York, United States

Andrea Van Hoever, MSGH, ASE + ASE Foundation, Durham, North Carolina, United States and the ASEF-SOSECAR Global Health Outreach Team

Over just two days, 2,296 children across 14 schools and daaras (traditional Islamic schools) were screened. The results were both sobering and motivating:

- 82 children were identified as suspected cases,
- 53 were confirmed according to World Heart Federation (WHF) 2023 criteria,
- Representing a prevalence of 23 per 1,000 — a powerful reminder of the continuing global burden of RHD.

But the success of this collaboration was not defined by numbers alone. What unfolded was an example of two-way partnership, cultural respect, shared learning, and enduring human connection.

Local Leadership and Precision Planning

The event's clinical reach was made possible by the planning and leadership of SOSECAR. Fourteen screening teams were organized, each comprising:

- One ASE Foundation volunteer,
- One Senegalese cardiologist,
- A cardiology resident,
- Two nurses trained in focused cardiac ultrasound.

This structure promoted skill sharing and clinical oversight while empowering nurses and residents with active engagement. SOSECAR also developed a real-time electronic registry to collect data across all sites, coordinated same-day transport for confirmatory exams at Dalal Jamm Hospital, and mobilized respected community leaders — particularly les mères de communauté — to build trust and engagement.

“Everything was in place. I could focus entirely on scanning. The organization allowed us to screen hundreds of children in just hours.”

— Timothy Rosborough, BS, RDCS, FASE

From Awareness to Empowerment

Screening was only one part of the initiative. Structured educational sessions were held at each school. Animated videos, simplified for young audiences, were translated into Wolof and French. Nurses explained symptoms of acute rheumatic fever and prevention strategies,



Dr. Almame Sisse and Dr. Cynthia Taub scanning students at daara Ndiarème Limamoulaye.



Community engagement and educational outreach is crucial for RHD prevention and early intervention.

highlighting the importance of hygiene and early medical consultation.

“We watched children gain confidence with each correct answer. Some even expressed dreams of becoming doctors. That’s where change begins.”

— Nausheen Akhter, MD, FASE

In one memorable moment, a child initially afraid of the scan was invited to hold the probe. Pretending to scan himself, he broke into laughter — and later completed the exam with a smile.



Bidirectional learning and partnership in practice.

A small portion of Team Senegal 2025.

Knowledge Exchange in Valvular Heart Disease

A two-day educational symposium brought together ASEF and SOSECAR faculty to review advances in diagnosing and managing rheumatic and non-rheumatic valvular heart disease. Presentations attracted participants from multiple countries across neighboring West and Central Africa. Complex cases were discussed from diverse perspectives, and the event concluded with hands-on workshops on native and prosthetic valve assessment, stress echocardiography, and transesophageal echocardiography.

Workshops in echocardiography and point-of-care ultrasound (POCUS) trained over 30 cardiology fellows and nurses from Senegal and neighboring countries. Sessions included pediatric screening, lung ultrasound, abdominal assessments, and vascular access — practical skills for day-to-day practice.

Teranga in Action: Hospitality for Public Health

One word surfaced again and again in reflections: Teranga — the Wolof term for hospitality, generosity, and warmth. From airport greetings to shared meals, from school visits to cultural exchanges, hosts extended generosity that deepened bonds between teams.

“We were welcomed as equals, as partners. This wasn’t a one-sided intervention — it was a shared commitment.”

— Federico Asch, MD, FASE



Participants received personalized welcomes and traditional gifts, including a Senegalese drum — a symbol of friendship and enduring connection. As Prof. Abdoul Kane shared, “When the drum is played, we will hear the call across the ocean — and respond.”

A Shared Vision for Sustainable Impact

The week’s achievements were a step in an ongoing effort:

- Annual school-based RHD screening campaigns are being institutionalized,
- Nurses trained during the event will continue screening in new schools,
- Teachers are learning to recognize early signs for prompt referral,
- Advocacy continues for expanded antibiotic access and a national RHD registry.

SOSECAR and the Senegalese Ministry of Health are integrating these strategies into public health planning, combining prevention, treatment, education, and capacity building.

A City of Surprises, A Team Enriched

For many participants, Dakar was a revelation — a capital city alive with history, innovation, and hospitality. Visits to Ngor Island, the Renaissance Monument, and the historic port of Gorée were memorable, but what left the deepest impression was not the landmarks, but the people — the young patients, the mothers, the nurses, and the physicians who welcomed us as partners.

Judith Becker, MD, reflected: “I was least surprised by our team — I knew it would be strong. But I was deeply moved by the welcome, the professionalism, and the way we worked side by side with our Senegalese colleagues to reach so many children in such a short time.”

Participants departed not only with the sense of having contributed, but with hearts and minds transformed by the reciprocity of the exchange. This was a shared journey of learning, mutual respect, and human connection — one that continues to echo far beyond Dakar.

Final Reflections

This initiative was not just about echocardiography — it was about partnership, equity, and solidarity. It showed how technology and clinical skills can be paired with education, local leadership, and cultural connection to strengthen health systems and change lives.

The impact was clinical, educational, emotional, and lasting. When collaboration is grounded in mutual respect and shared purpose, it goes far beyond the probe — resonating like the steady rhythm of a Senegalese drum.



**This was a shared
journey of learning,
mutual respect, and
human connection —
one that continues
to echo far
beyond Dakar.**

Merci, Team Senegal!

Team Leaders

- Pr. Abdoul Kane, MD, Dakar, Senegal
- Pr. Fatou Aw Leye, MD, PhD, Dakar, Senegal
- Warner Mampuya, MD, PhD, Sherbrooke, QC, Canada
- Cynthia Taub, MBA, MD, FASE, Syracuse, New York, United States

Medical Team

- Dr. Nasser Ali Abdi, Dakar, Senegal
- Dr. Abdelkerim Mahamat Aboubakar, Dakar, Senegal
- Nausheen Akhter, MD, FASE, Chicago, Illinois, United States
- Federico Asch, MD, FASE, Washington, DC, United States
- Dr. Assane Ba, Dakar, Senegal
- Judith Becker, MD, Houston, Texas, United States
- Sagit Ben Zekry, MD, Rosh HaAyin, Israel
- Pr. Serigne Mor Beye, Dakar, Senegal
- Pr. Malick Bodian, Dakar, Senegal
- Roslyn Brosier, CVT, RCS, RCVT, RDCS, RVS, FASE, Willingboro, New Jersey, United States
- Dr. Cordelia Da Sylveira, Dakar, Senegal
- Dr. Dior Diagne, Dakar, Senegal
- Dr. Maodo Diop, Dakar, Senegal
- Dr. Marguerite Tening Diop, Dakar, Senegal
- Dr. Khady Diouf, Dakar, Senegal
- Pr. Momar Dioum, Dakar, Senegal
- Dr. Jean Pierre Djossa, Dakar, Senegal
- Dr. Hugor Edumu, Dakar, Senegal
- Dr. Fatou Kine Fall, Dakar, Senegal
- Dr. Gora Fall, Dakar, Senegal
- Dr. Mame Coumba Dior Fall, Dakar, Senegal
- Dr. Moustapha Fall, Dakar, Senegal
- Dr. Nael ka Fall, Dakar, Senegal
- Dr. Ndeye Faye, Dakar, Senegal
- Dr. Papa Adama Faye, Dakar, Senegal
- Dr. Ngone Diaba Gaya, Dakar, Senegal
- Dr. Bineta Gueye, Dakar, Senegal
- Dr. Coumba Bathily Gueye, Dakar, Senegal
- Dr. Khadiyatou Gueye, Dakar, Senegal
- Dr. Ayme Houefa, Dakar, Senegal
- Dr. Ismael Hanifa Ibouroi, Dakar, Senegal
- Jill Inafuku, BS, RDCS, RDMS, FASE, Kaneohe, Hawaii, United States
- Dr. Malado Ka, Dakar, Senegal
- Dr. Malick Ndiaye, Dakar, Senegal
- Pr. Mouhamadou Bamba Ndiaye, Dakar, Senegal
- Dr. Ousmane Ndiaye, Dakar, Senegal
- Dr. Gorgui Ndoeye, Dakar, Senegal
- Pr. Aliou Alassane Ngaide, Dakar, Senegal
- Dr. Arcel Ngoma, Dakar, Senegal
- Dr. Malao Ngom, Dakar, Senegal
- Hélène Plante, DEC, Sherbrooke, QC, Canada
- Nathalie Rodrigue, DEC, Sherbrooke, QC, Canada
- Timothy Rosborough, BS, RDCS, FASE, Boston, Massachusetts, United States
- Dr. Ousmane Thiané Sar, Dakar, Senegal
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- Dr. Moncef Slaoui, Dakar, Senegal
- Dr. Abdoulgabar Souleiman, Dakar, Senegal
- Waseem Sous, DO, Syracuse, New York, United States
- Dr. Alioune Badara Sow, Dakar, Senegal
- Dr. Aimé Mbaye Sy, Dakar, Senegal
- Dr. Fatou Mbacké Thiam, Dakar, Senegal
- Dr. Ousmane Yaya Wane, Dakar, Senegal
- Yan Wang, MD, RDCS, FASE, Philadelphia, Pennsylvania, United States
- Dr. Issa Yakusu, Dakar, Senegal

Paramedical Team

- Mr. Boydo Ba, Dakar, Senegal
- Mme. Hassanatou Ba, Dakar, Senegal
- Mr. Djibril Badji, Dakar, Senegal
- Mr. Mouhamadou Camara, Dakar, Senegal
- Mme. Rokhaya Diagne, Dakar, Senegal
- Mme. Aida Diaw, Dakar, Senegal
- Mme. Salimata Dieng, Dakar, Senegal
- Mme. Asta Diop, Dakar, Senegal
- Mme. Diarra Diop, Dakar, Senegal
- Mr. Pathé Diouf, Dakar, Senegal
- Mme. Marième Soda Drame, Dakar, Senegal
- Mme. Ndèye Ngone Gaye, Dakar, Senegal
- Mme. Ndèye Adama Gningue, Dakar, Senegal
- Mme. Aminata Ly, Dakar, Senegal
- Mr. El Hadji Mane, Dakar, Senegal
- Mr. Mansour Mbacke Dieng, Dakar, Senegal
- Mme. Sokhna Ndaye, Dakar, Senegal
- Mr. Moustapha Ndiaye, Dakar, Senegal
- Mr. Babacar Ndione, Dakar, Senegal
- Mme. Jennijer Ossey-Pea, Dakar, Senegal
- Mr. Mamadou Sall, Dakar, Senegal
- Mme. Ndeye Isseu Sarr, Dakar, Senegal
- Mr. Ibrahima Sow, Dakar, Senegal
- Mme. Maimouna Sow, Dakar, Senegal
- Mme. Lala Traore, Dakar, Senegal
- Andrea Van Hoever, MSGH, Durham, North Carolina, United States
- Mme. Mbayang Wade, Dakar, Senegal
- Mme. Emilie Yassama, Dakar, Senegal

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DON'T MISS A BEAT: HIGHLIGHTS FROM THE ASE 2025 CARDIOVASCULAR ULTRASOUND TRENDS REPORT



In March of 2025, ASE asked its audience—members and non-members—to participate in the ASE 2025 Cardiovascular Ultrasound Trends Survey. Over 800 individuals responded, answering questions on a variety of topics ranging from practice management and equipment usage to advanced applications and innovations in echocardiography. This survey included a lottery drawing, entitling respondents to a chance at winning one of two \$100 VISA gift cards, and we are pleased to announce the following winners: Jeff Jewell and Lisa Lynn!

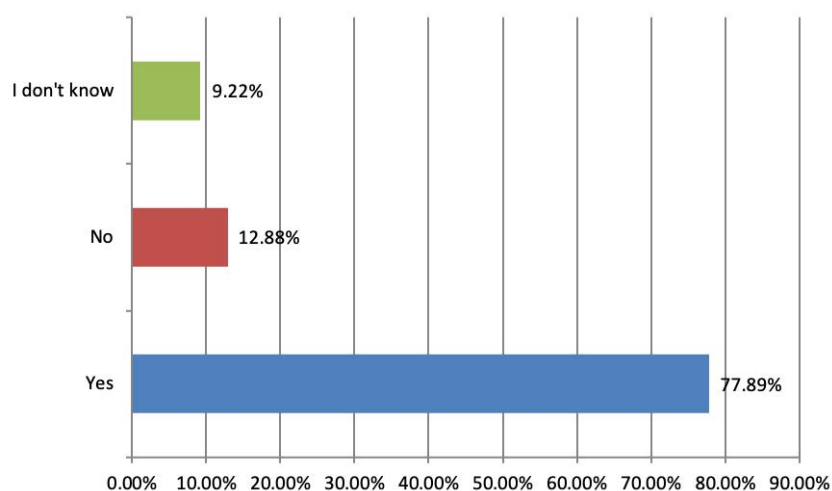
ASE very much appreciates all the time and effort our respondents took in responding to this survey to provide a critical look at the current state of cardiovascular ultrasound. The valuable data collected directly informs the development of ASE programs and resources for years ahead and provides our Industry Roundtable partners with essential insights into on-the-ground ultrasound trends.

ASE is pleased to spotlight a few notable data points from this report.

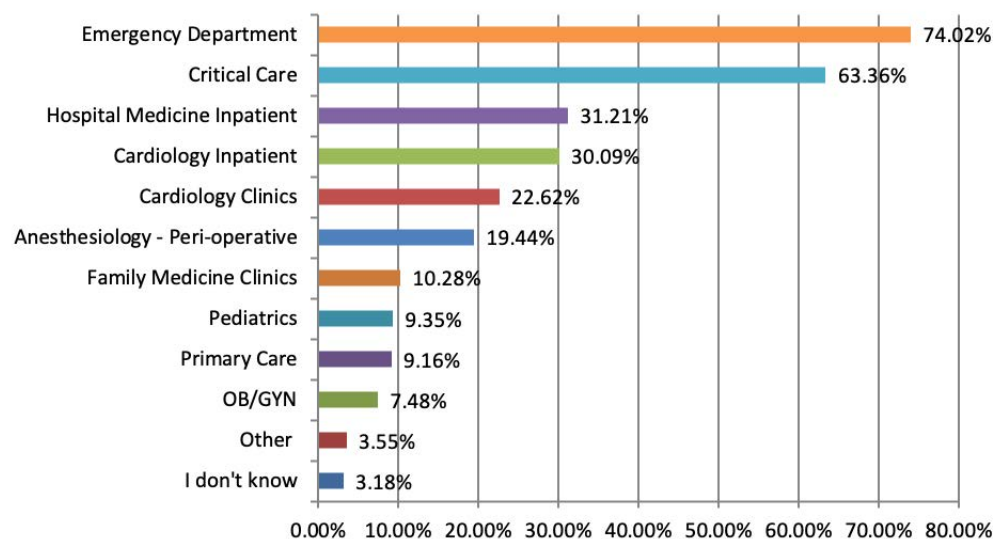
Point of Care Ultrasound (POCUS)

This year's survey probed the prevalence and use of point-of-care ultrasound (POCUS), with nearly 78% of respondents reporting its use, including 74% and 63% of respondents citing its use in emergency departments and critical care units, respectively.

Q18. Does your institution support point of care ultrasound (POCUS)? N=683

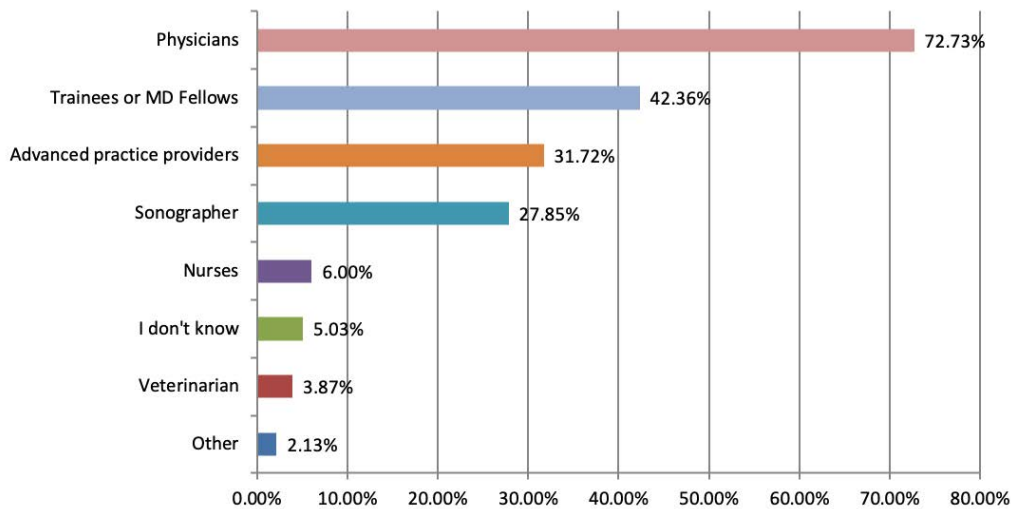


Q19. Where is POCUS performed in your institution? Select all that apply. N=535



The majority of POCUS procedures are reportedly performed by physicians.

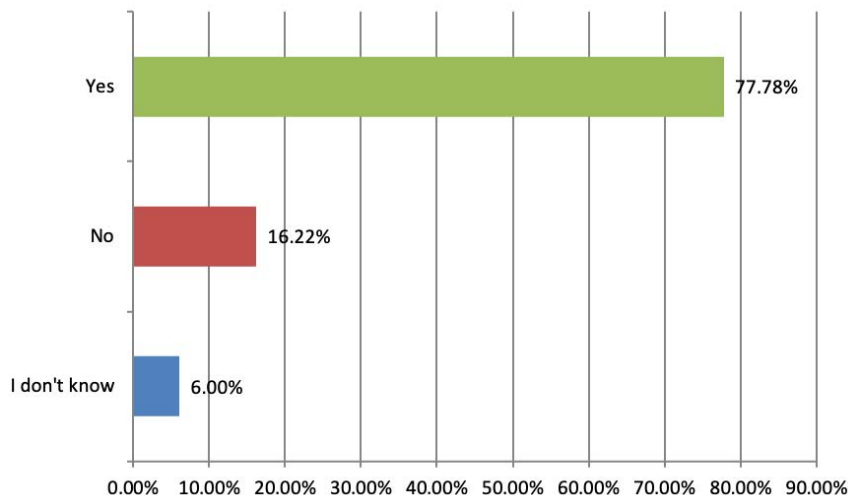
Q24. Who performs POCUS imaging at your institution? Select all that apply. N=517



Structural Heart Disease and Interventional Procedures

Awareness of the value of echocardiography in guiding structural heart interventions continues to grow. Nearly 78% of respondents reported an increase of structural heart procedures in their labs or institutions over the past 12 months (as compared to 66% in 2024, 59% in 2023, and 51% in 2021).

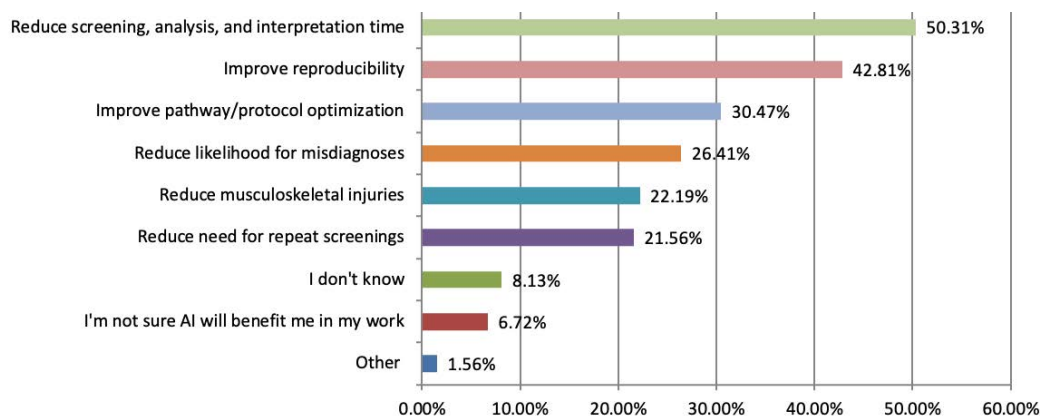
Q35. In the past 12 months, has your lab or institution increased the number of structural heart procedures? N=450



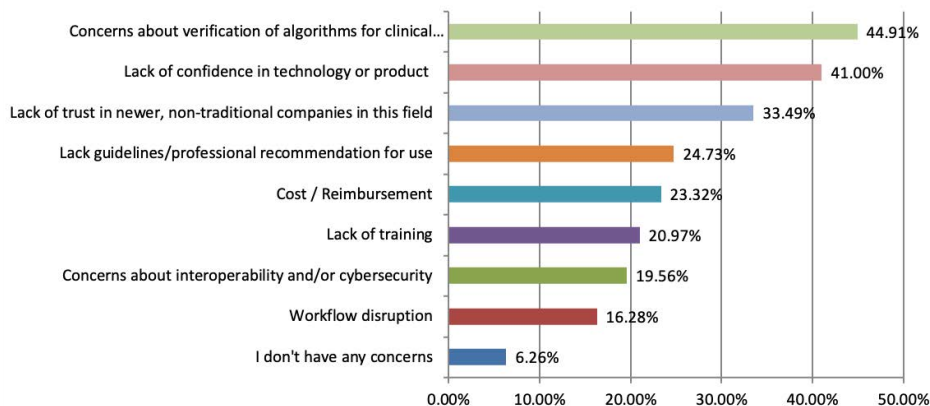
AI in Echocardiography

Respondents' responses indicate significant expectations from AI technology, with only ~7% of respondents predicting no benefit and ~6% of respondents reporting no concerns or reservations. On the positive side, 50% of respondents predict reduced screening time, analysis, and interpretations. However, ~45% of respondents reported concerns about verifying algorithms for clinical validation and 41% reported a lack of confidence in the technology.

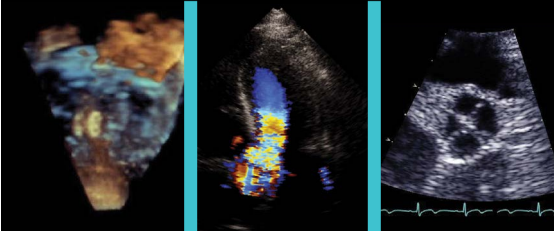
Q49. Please select the way(s) you think improved AI could be most beneficial to you in your work. Select up to three. N=640



Q50. What are the greatest concerns or reservations you have about AI? Select up to three. n=639



The ASE Cardiovascular Ultrasound Trends Survey results offer a critical look at the forces shaping the current and future state of the field, from clinical decision-making to echo innovation and patient care. We deeply appreciate the participation of the respondents who completed the survey and are very pleased to share our findings and continue providing you with updates.



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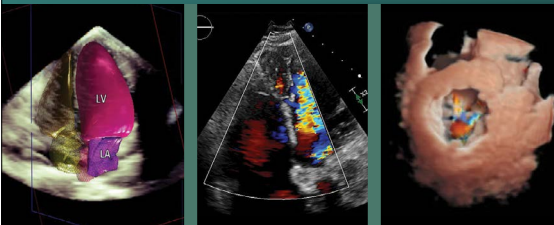


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