



SPOCUS

The Society of Point of Care Ultrasound

The Echo Chamber

The Official Newsletter of the Society of Point-of-Care Ultrasound



Winter
2021

FROM THE PRESIDENT

What a long, strange year it's been. Like the rest of the world I am suffering from COVID-19 fatigue. Yet once again POCUS brought me back from the depths of despair! I saw a gentleman in his late 30's sent in from the clinic for possible gallbladder problems. I saw the chief complaint and wheeled the unit in. His gallbladder looked pristine, no stones/sludge, wall thickening, pericholecystic fluid or sonographic Murphy's. I didn't even have to roll him. But during the exam I could help but note how tachypneic he was. At our institution we have an unusual number of sick patients who only breathe 16 times a minute (I kid of course). He was easily doing 28. I slid the probe up to look at his lungs – and voila there were his patchy subpleural consolidations, skip lesions and focal B lines. He tested positive that day for COVID-19. Would I have picked it up without spending so much time at the bedside? I'd like to think so but who knows. Once again the power of POCUS allowed me to spend quality time actually examining my patient. It's been an honor to serve as president this year. We've seen our numbers grow to over 600 including all walks of healthcare - medics, nurses, PA/NPs, Docs and a lot of students. We've seen more and more PA and NP programs reaching out and implementing POCUS into curriculums and labs. Our President-elect Patrick Bafuma spearheaded an email feed on interesting US articles.

We managed to conduct our signature iScan event virtually. This year's event featured some 114 students with 32 teams from various PA programs across the country, and even a welcome addition of an NP group from UNC. Indiana University finished first with Emory in second. Student teams competed virtually. They were asked both POCUS and pathophysiology and treatment questions related to a wide variety of topics. The questions were developed and peer reviewed by SPOCUS leadership. As usual we had no trouble finding judges/mentors to assist. While it certainly can't replace live scanning the students, faculty and judges came away smarter and with a renewed sense of camaraderie for the use of POCUS.

We are even looking at collaborating with a South African group eager to expand POCUS use amongst their non-physician providers. Lots of good stuff! Finally, you should have received email notification of our election results. Most importantly stay safe, sane and sonographically savvy.

Fritz Fuller, Immediate Past-President
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IN THIS ISSUE...

- *Hear from President Fritz Fuller*
- *Member Spotlight featuring Dr. Rohan Bhimani - Foot and Ankle Surgeon at Mass General*
- *Meet the new Board of Directors*
- *COVID-19 POCUS Resource Library*

....and much more!



MEMBER SPOTLIGHT

Dr. Bhimani is an orthopaedic surgeon who is currently doing research at Foot & Ankle Research and Innovation Laboratory (FARIL), Department of Orthopaedic Surgery, Massachusetts General Hospital. His research interests are in the utility of weight-bearing computed tomography and portable ultrasound to evaluate foot and ankle disorders. For the last two years, he has worked on the foundation of evidence-based practice for portable ultrasound utility by investigating diagnostic accuracy, reliability of diagnostic measurements, and exploring the best examination techniques. The results of this research are disseminated through presentations during national and international conferences, peer-reviewed publications, and educational videos. The ultimate objective is to enhance democratization of diagnostic imaging using portable ultrasound.



How were you first introduced to POCUS, and did you have a “lightbulb” moment in which you recognized the value of POCUS in your practice?

My first encounter with portable ultrasound was when I attended a musculoskeletal ultrasound course where I was first introduced to the examination of various ligaments and joints using ultrasound. I was intrigued by the applications of portable ultrasound in musculoskeletal injuries and was surprised by the lack of evidence in the literature. This made me realize the unexplored impact POCUS can have in musculoskeletal injuries, which may be extremely beneficial in resource-limited settings. As my interest in POCUS grew, my colleagues and I at FARIL started exploring the role of portable ultrasound in musculoskeletal injuries initially through biomechanical studies and later translating our findings into clinical setup.

How do you employ POCUS in your day-to-day practice, and which applications do you find most useful?

In the modern state of healthcare, we heavily depend on evidence. Evidence-based research is required to make diagnostic and treatment decisions, not only for the patients' benefit but also as an accessory to ethical practice. I am currently looking at the role of point of care ultrasound in musculoskeletal injuries. The team at FARIL has shown that diagnostic accuracy and reliability of portable ultrasound to differentiate stable from an unstable joint, which are the two ends of the spectrum, and injury management differs significantly, particularly with regards to foot and ankle examination. Moving forward, I'd like to further explore the use of portable ultrasound in injuries of the knee with special emphasis on patellar instability.

Of the applications you employ, are there any you believe would be valuable to clinicians in general practice or across multiple specialties?

For me, the application of POCUS in foot and ankle injuries is the most important one. Over the years, POCUS has shown to be a reliable tool to detect ligamentous injuries at the point of care, at low cost, and with no ionizing radiation. Recently, my work has proven the sensitivity and reliability of POCUS to identify syndesmotic instability and medial or lateral ankle instability. This research creates guidelines on how to best assess suspected foot and ankle injuries and the severity of injury, which can be valuable information for care providers with relatively little ultrasound experience, even in resource-limited settings.

MEMBER SPOTLIGHT (continued from previous page)

What barriers to POCUS employment have you encountered or have you seen others encounter, and how did you overcome them?

POCUS is a revolutionary tool that can completely transform patient care. The two major concerns I often hear from providers in the employment of POCUS, as a diagnostic tool itself, is the operator learning curve and the limited supporting literature, especially pertaining to musculoskeletal disease. I believe the learning curve for each injury of interest can be overcome by performing supervised 20-25 scans of the related injury. Once the operator feels comfortable using the device, POCUS can be a true asset to his/her practice. This is arguably true for any new technology, and with the advent of standardized techniques, ongoing research, educational resources, generalized consensus, and advocacy can easily overcome this hurdle

Can you share with us three educational/clinical POCUS pearls or some tips for those considering integrating POCUS into their practice?

In order to detect MSK instability, always start with good image quality. Thereafter:

1. Sound anatomical and biomechanical knowledge about the injury in question is very helpful. Since there is wide variation in anatomy across individuals, therefore capturing instability can sometimes be challenging. However, good knowledge of the surrounding structures and initial supervised screening of the MSK instability can help overcome this problem.
2. Proper probe positioning. I always follow the 'C' technique. In this technique, your index finger and thumb form the 'C' around the probe and gives a good grip on the probe and allows you to constantly capture the same anatomy during dynamic evaluation. In addition, following standardized measurement protocols helps reproduce the same image across different patients.
3. Whenever the injury is subtle, or the findings are inconclusive, use the contralateral, uninjured, healthy side as a threshold control rather than using absolute values of instability. This is critical given the variable anatomy of the joints across individuals. Use of the contralateral side can aid in identifying subtle instability and differentiate it from natural variation in clinical settings.

CONGRATULATIONS

TO OUR NEWLY ELECTED BOARD OF DIRECTORS!

- PRESIDENT PATRICK BAFUMA
- PRESIDENT-ELECT AARON INOUE
- SECRETARY/TREASURER ROBYN MITCHELL, ACNP
- DIRECTORS-AT-LARGE: SARA WINTER, PA-C, SLP & DANIEL STURM, PA-C

PROGRAM SPOTLIGHT

Aspirus Wausau Hospital Physician Assistant Point-of-Care Ultrasound Internship

Robert Kollpainter PA-C, FAPACVS, RDMS, CAQ in CVTS and Kim Kuphal, RN, BSN, MPAS, PA-C direct the program. Initially it was aimed at PA students but this year accepted two practicing PAs. The main objectives of PA-POCUS are to develop expertise in performing and interpreting Level I Cardiac, Lung, Abdominal Trauma, Renal and Lower Extremity Point-of-Care Ultrasound exams.

The program also covers various Protocol Driven Ultrasound in patient evaluations, specifically: Extended Focused Assessment with Sonography in Trauma (eFAST) Protocol, Bedside Lung in Emergency (BLUE) Protocol, Fluid Administration Limited by Lung Sonography Protocol

Achieve preparedness for the POCUS Certification Academy™ Ultrasound Certifications in:
Point-of-Care Fundamentals

Cardiac Point-of-Care

Lung Point-of-Care

Abdominal Trauma Point-of-Care

Renal/Genitourinary Point-of-Care

Lower Extremity/Deep Venous Thrombosis Point-of-Care

Gain significant experience in POCUS Ultrasound education, including: PA-POCUS design, POCUS course design, and completion of a presentation for future PA-POCUS candidates.

Clinical Requirements:

Attend a minimum of 10 negotiated patient scanning labs under the direct supervision of core faculty.

Develop a portfolio of high quality and correctly interpreted ultrasound exams:

Lung: 30 cases

Cardiac: 30 cases

Lower Extremity: 20 cases

Abdominal Trauma/Renal: 20 cases

Lower Extremity/Deep Venous Thrombosis: 20 cases

After successful completion of the PA-POCUS Internship, the Intern will be provided an Ultrasound Credentialing Letter as outlined by the Ultrasound Guidelines: Emergency Point-of-care, and Clinical Ultrasound Guidelines in Medicine, June 2016. If the Intern desires, they may also obtain external certifications.

We've updated our website for increased navigability!

We recently partnered with Harmony Graphic and Web Design to refresh our website. We welcome any recommendations for adding content or streamlining member support!



Reminder - SPOCUS COVID-19 Resource Library!

We've created a repository of emerging COVID-19 POCUS resources to guide clinicians in the employment of POCUS when managing patients diagnosed with or suspected of having COVID-19. Find the red COVID-19 Resource tab on our homepage at spocus.org

COVID 19 POCUS Resources

Machine Disinfection

- Machine Disinfection Protocols from Canadian POCUS Society
- ACEP EUS Section COVID19 US Machine Cleaning/Disinfection Protocol
- List of COVID19 Disinfectants
- Scanning Use and Disinfection workflow from Denver EM

Publications

- Proposal for international standardization of the use of lung ultrasound for COVID-19 patients; a simple, quantitative, reproducible method
- Findings of lung ultrasonography of novel corona virus pneumonia during the 2019-2020 epidemic

Miscellaneous FOAMUS Resources

- POCUS101 Complete GUIDE to Lung Ultrasound in COVID-19 from Dr. Vi Am Dinh
- Intensive Care Society's FUSIC COVID-19 guidance and resources
- CriticalCareNorthampton.com Ultrasound in COVID Resources
- Zeddu Training Solutions Compilation of

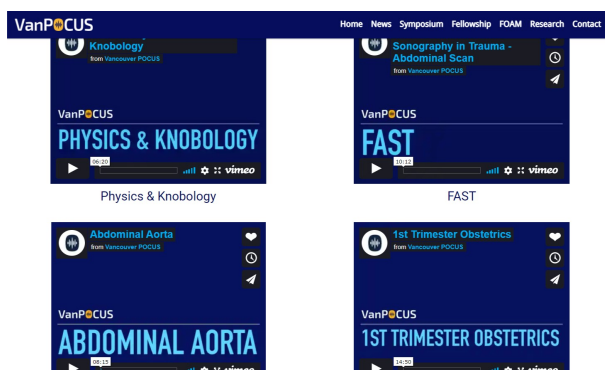
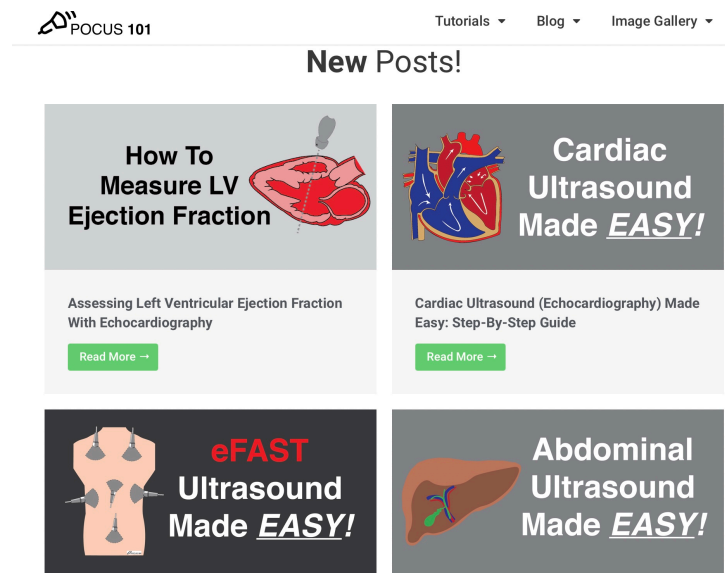
Featured POCUS Resources

SPOCUS Focus Monthly Literature Update

We're proudly offering our members a curated list of the most current POCUS literature. Keep an eye out for our monthly emails complete with PubMed linked articles from across the clinical and academic realms- look for it in your mailbox.

POCUS101.com

The brainchild of Vi Dinh, MD this site is a fantastic resource. This website is an incredible source for all levels of POCUS. The tutorials are in depth but not necessarily overwhelming. They have created fantastic user-friendly infographics that are great for storing on a phone for easy bedside use. A lot of the tutorials area appropriately named "ultrasound made easy." There is also a good section on books both in depth covering a variety of POCUS uses as well as numerous free ebooks. Definitely worth checking out.



VANCOUVERPOCUS.CA

A great website filled with FOAM-US how-to videos from our friendly neighbors to the North! So why not grab a cup of TimmyHo's, turn on some Hip in the background, and lean in to some high quality FOAM-US, eh?!

UPCOMING US COURSES

COVID-19 has significantly impacted most scheduled courses. As we emerge from social isolation, bear with us as we update our list of upcoming courses.

Like us and connect with SPOCUS on social media where you can stay up to date on the latest workshop opportunities and catch great cases, the latest lit, and educational material from across the web

Web: <https://spocus.org/>

Email: spocus002@gmail.com

Twitter: @POCUS_Society

Facebook: Society of Point of Care Ultrasound

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Our Partners

