



SPOCUS

The Society of Point of Care Ultrasound

The Echo Chamber

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



Spring
2020

FROM THE PRESIDENT

Like the rest of the planet, our SPOCUS members are dealing with the large magnitude of a global pandemic. The SARS CoV-2 has implications for all of us caring for these patients. There has been heated discussions and debates about the utility of Lung US for COVID-19 patients. Obviously we are squarely on the side of its utility. I was fortunate to do a [podcast](#) with fellow SPOCUS member and founder of TotalEM- Chip Lange. There are some great point/counter point articles discussing the utility of POCUS in COVID-19. My favorite is entitled “[COVID-19 outbreak: less stethoscope, more ultrasound](#)” in [Lancet](#) along with a thought provoking editorial outlining the pros and cons. Of course we have been working hard to keep up with the relevant POCUS FOAM resources on our website.

iScan has been a premier event for SPOCUS. This year, with the pure energy of President-Elect Patrick Bafuma and the rest of SPOCUS team we successfully partnered with numerous academic PAs and held the first ever Virtual iScan. We had 32 teams with 114 students including an NP team from UNC. Please take a moment and read all about it in this newsletter.

Finally we have passed over 600 members! This is a huge milestone for a group of like-minded folks hoping to spread the use of point of care ultrasound to all clinical environments. We are successful because we are passionate about our mission. Personally, this is manifest in the camaraderie amongst our members. I have been humbled, privileged and flat out awe struck at how our members are so willing to share their uncompensated time to spread this knowledge. If you have ideas about how to improve the organization or promote more use of POCUS please reach out to us!

Fritz Fuller, SPOCUS President
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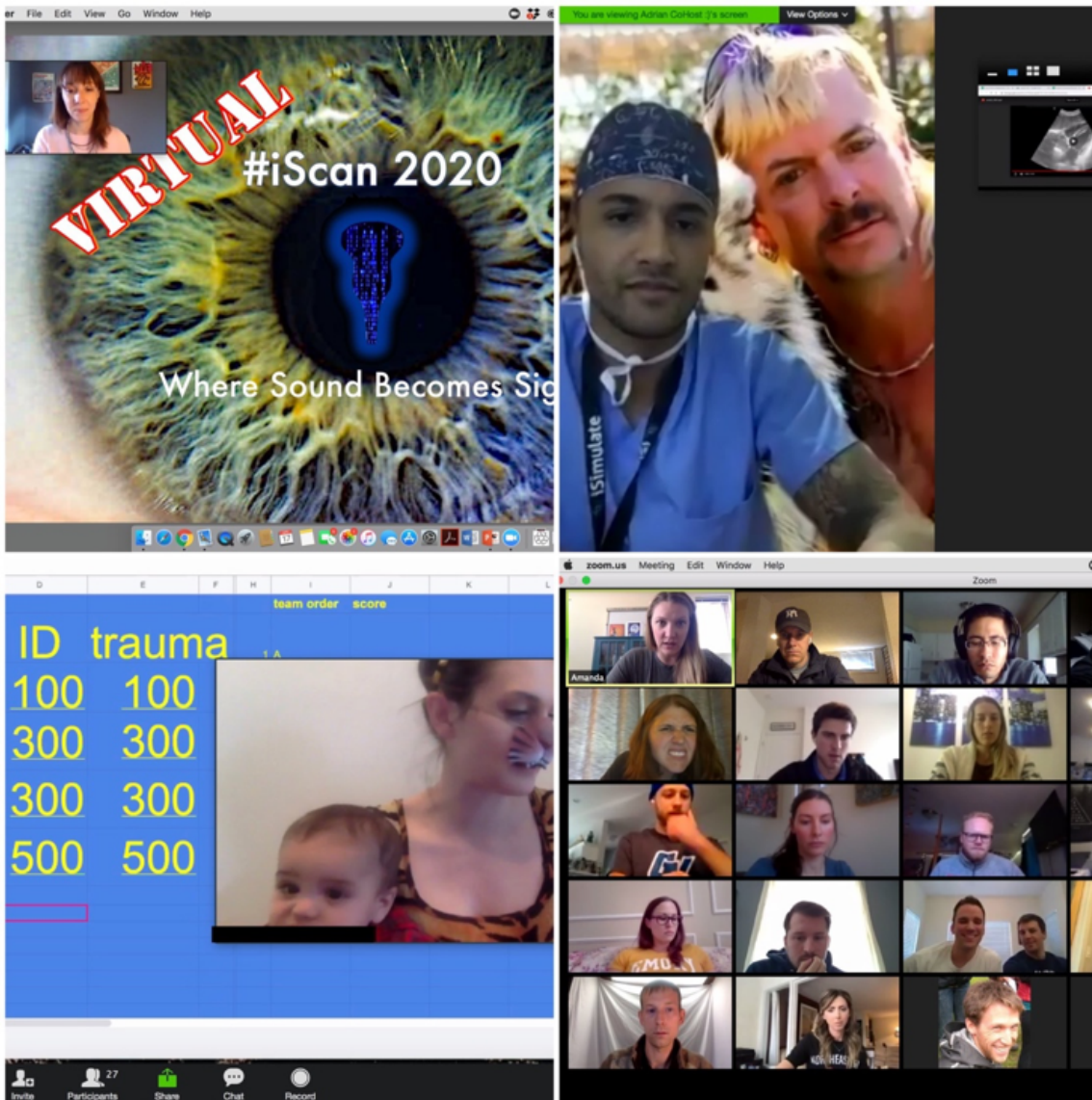
IN THIS ISSUE...

- *Hear from New SPOCUS President Fritz Fuller*
- *Golden Probe Awardees Announced!*
- *Virtual iScan!*
- *Member Spotlight featuring pulm/CC PAs John Heisler and Jeremy Amayo*
- *COVID-19 POCUS Resource Library*

....and much more!

Virtual iScan 2020

This year's event featured some 114 with 32 teams of students 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 team 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. 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.



SPOCUS Member News and Annual Awards

The Golden Probe Awards

Our annual Golden Probe Awards has typically been given out at our annual iScan competition. This year's winners in our two categories are Janelle Bludorn an emergency medicine PA and faculty member in the PA program at UNC, and UC student, Miles Henson.

Janelle has been a huge advocate, disrupter and mentor for POCUS use by clinicians. Last year at AAPA she delivered a powerful thought provoking talk to senior academic PAs in a special session for PA educators. She has delivered lectures and research on POCUS with such inspiring titles as "Perfecting Your Physical Exam With POCUS" and "Probe the Future: Innovating with POCUS" and "Anatomic Body Painting & POCUS to Invigorate your Anatomy Curriculum." Her efforts to promote POCUS are the epitome of our organization's goals of democratizing and promoting POCUS use across the clinical spectrum.

Our Student Golden Probe award was given to Miles Henson. He received a ridiculous amount of nominations most of which suggesting he has taking the love of POCUS to amazing extremes! A small sampling is below:

- *Miles is the reason why I became interested/know anything about ultrasound.*
- *Miles Henson is the entire reason that I know anything about POCUS. When we started in PA school at the University of Colorado, our program had zero exposure to POCUS and the ways it can be utilized clinically. Miles was the person who changed all of that. He worked with faculty in the Department of Emergency Medicine to restart the interdisciplinary Ultrasound interest group, as well as founded a PA student team for Yes I Scan! 2019. Miles took it upon himself to reach out to faculty on campus to arrange for experts to come train us in different POCUS scans. He has been blazing a trail at the University of Colorado to increase awareness and competency in POCUS. Miles is now working with the faculty at CU to find ways to incorporate POCUS into our curriculum so that future generations of PA students can provide the best patient care possible. His next project is working with the PICU faculty at Children's Hospital Colorado to help develop a POCUS curriculum for the pediatric residents rotating through the ICU.*
- *Miles has prepared and given lectures on various utilizations of POCUS and taught us through hands-on practice how to perform the various exams and procedures. He has sparked my interest in POCUS and has taught me more than I could have ever imagined. I will graduate a better-equipped PA because of his contributions to our student-run POCUS interest group.*

We'd also like to recognize all those who were nominated:

Golden Probe: Barbara Piccirillo, Cary Stafford, Sara Winter, Jason Parente, Jeremy Amayo, Ian Smith, and Sara Urquhart.

Student Leadership: Rob Duncan (U of Utah), Geoff Jones (Wake U),

"Janelle has been a huge advocate, disruptor and mentor for POCUS use..."

What we've been up to....

- **Student Outreach opportunities including virtual POCUS education and SUIS creation**
- **Pursuing collaborative and grant funding opportunities that expand POCUS training**
- **Strategy development for increasing POCUS fellowship opportunities**
- **National-level resolution to recognize POCUS as skill integral to the practice of medicine**

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!



New 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



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 FM

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
- Zedu Training Solutions Compilation of

MEMBER SPOTLIGHT

John Heisler, PA-C is with Piedmont Physicians Pulmonary and Critical Care Medicine where he serves as the Professional Development Manager. He is also Mercer Adjunct Faculty and one half of the awesome Pulmcast podcast.

How did you get interested in POCUS? How has this changed your practice?

Our ICU group started using ultrasound for procedures around the time I started nearly 10 years ago now. We were using it mainly for central lines, arterial lines and some thoracentesis. We didn't even consider it POCUS because we were just popping the probe on looking at veins and arteries. It was purely procedural to begin with. From there, I got interested in POCUS like a lot of people through the world of #FOAMed. I was consuming large amounts of blogs, podcasts, and twitter. I came across ultrasoundpodcast first by Mike and Matt and went down the rabbit hole from there. I also attended several SMACCs and had the privilege of seeing them live. They made the world of POCUS look super fun, exciting, and easier to start than I had thought. Several of us took this and ran with it in our practice. We convinced the hospital to fund a local in-house course who came and taught us the basics of POCUS mainly cardiac, lung, and abdominal.

"We did get some initial push-back from our echo folks, but once we worked together and realized it would cut down on the volume of echos they had to do they turned into wonderful partners willing to teach us more about cardiac ultrasound. We are still working with them to get even more folks trained adequately in POCUS."

What applications do you use a lot? What about ones that you want to learn?

I use POCUS everyday. Some days admittedly not as much as I'd like depending on patient volume. I find it absolutely most valuable in patients who are actively decompensating or newly critically ill. It is the ultimate in patient assessment to be able to walk into a rapid response room and calmly pull out your probe (scannypack?!?) and quickly rule many things out and either get a diagnosis or at least have a treatment plan started. For these patients I'm doing a lot of RUSH protocol. I'm looking at basic cardiac, lungs, DVT, abdominal at a minimum. In rapidly progressing patients this should at least get me close enough to feel confident in a game plan going forward.

I want to get better at more advanced cardiac assessment. I still need to learn diastology, VTI calculations and better valve assessments.

Can you think of three pearls for critical care and inpatient ultrasound?

When doing a RUSH protocol on someone with unidentified type of shock remember to tick off all the reasons they don't have shock. I do this aloud in the room (I like to make people think I'm cool). "There is no pericardial effusion, there is no PTX, the EF looks adequate, the RV looks normal size and function, I don't see a DVT..." Even if you don't arrive at the final answer this is immensely confidence boosting to yourself and the room if you can eliminate that many causes of shock right out of the gate.

Have you encountered barriers to doing more POCUS exams?

There has been no real hospital or group barriers to doing more POCUS exams. Our primary limitation has been our volume. Jeremy and I both work in a high volume and high acuity practice that sees tons of sick patients per day. Prior to the era of handheld ultrasounds this meant if you started the day with the ultrasound in the closet there was a good chance it got left there for most of rounds. I started doing more simply by moving it out of the closet and next to me when i was charting. It's the little things right? Once I got a handheld it's made it more of a guarantee I'm going to ultrasound several patients that day. We did get some initial push-back from our echo folks, but once we worked together and realized it would cut down on the volume of echos they had to do they turned into wonderful partners willing to teach us more about cardiac ultrasound. We are still working with them to get even more folks trained adequately in POCUS.

We know you both are quite adept at all things related to critical care - what would you say to someone wanting to learn how to use ultrasound in this settings?

ICU POCUS can be tough because there are so many things we can ultrasound it can be overwhelming. Pick one exam for a whole week or a whole month and just scan for that. Pick Lungs and watch every video on Lung POCUS you can find. Scan every patient you see that day that has lungs (should be all of them!?). Don't make any assessments just do exams. Start to see what normal looks like. Once you've done that, you can start making assessments. Find someone better than you at POCUS and pick their brain. Don't be intimidated, POCUS is a very flat hierarchy and seems to attract people passionate about learning and bettering themselves. Those people love to teach and would be happy to show you what they know!

Don't fall into the trap of volume assessment at first. Volume assessment is the unanswerable question in the ICU. Don't spend your time only looking at IVCs or cardiac. Branch out to Lung, DVT, and abdominal. Get good at those and then return better equipped to interpret volume assessment. Remember no volume assessment is completely accurate and should be taken within the context of everything else you know about the patient to make a clinical decision.

Can you think of three pearls for critical care and inpatient ultrasound?

1. When doing a RUSH protocol on someone with unidentified type of shock remember to tick off all the reasons they don't have shock. I do this aloud in the room (I like to make people think I'm cool). "There is no pericardial effusion, there is no PTX, the EF looks adequate, the RV looks normal size and function, I don't see a DVT..." Even if you don't arrive at the final answer this is immensely confidence boosting to yourself and the room if you can eliminate that many causes of shock right out of the gate.
2. Get that machine out of the closet! Or out of your bag and fully charged. Always carry some gel! Get a scannypack, purse, nurse, or whatever you need to have it with you when you wish you did.
3. If you don't know Lung POCUS you are missing out! It's easy to learn and has so many functions.

You two host the popular PulmCast podcast and website- what's in the future for your followers?

We've been doing Pulmcast since 2016. We've done over 50 episodes. It's been an honor to be "on the air" for that long and still have people that listen to us and think what we have to say is valuable enough to spend their time on. I've been shocked at our popularity. Who knew so many people would be interested in what a few lame joke cracking PAs have to say about the ICU? We've added a 3rd member to the team Rachel Mulder and that's been able to stabilize our writing, recording, and editing structure. We had to pause working on Pulmcast during COVID19 as our shiftwork requirements went up but rest assured we will be back soon with regular episodes! We'd like to keep pumping out even more great content at a sustainable pace. Our goal is to mainly generate ICU core content because there isn't a lot of that out there. There is ED and IM core content but not that much ICU core content. We also do interviews periodically and intangibles of medicine when the whim strikes us. We are also working on adding more folks to our team who are interested in writing, recording, or editing content. We'd like to beef up the blog and website side of Pulmcast. If you are interested contact us!

What's in your scanny pack?

I like to keep mine light and ready for action. Just my butterfly and a whole tube of gel!Maybe a snack.

Anything else you'd like to say to the general membership?

The folks I have met through SPOCUS over the last few years are some of the most impressive clinicians I have been around. There is something about POCUS that draws the best people out. They are all driven and practicing at the top of their game. Its an honor to be counted as part of that group. I've gained several friendships and look forward when we get to meet up at various conferences throughout the year.

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MEMBER SPOTLIGHT

Jeremy Amayo is a critical care PA and Adjunct Assistant Professor at Emory University. He is also the other half of the awesome Pulmcast podcast.

How did you get interested in POCUS? How has this changed your practice?

I was first introduced to ultrasound in PA school during our EM module when we had a 30 minute crash course in the FAST exam. At the time, I thought it was a cool party trick but figured ultrasound was never something that I would be routinely using as a PA. This all changed during my cardiac ICU rotation when we would have echo rounds. The team would go through basic echo interpretation and I was HOOKED. They had a machine in the unit, and during downtime, I went through and scanned each and every patient.

Nowadays in my clinical practice, ultrasound has made me a better resuscitator, a better proceduralist, and a better clinician.

What applications do you use a lot? What about ones that you want to learn?

I'm big on cardiac, lung and procedural ultrasound. I'm a fan of RUSH, BLUE and some version of FALLs for our ICU population in terms of shock and respiratory failure management. I feel pretty comfortable with abdominal but I'd love to get those skills honed in a bit.

Have you encountered barriers to doing more POCUS exams?

Time is a big one. Our census (especially in the era of COVID) is through the roof. It can be hard to go out of your way to perform that ultrasound exam when sometimes it's easier to order some other diagnostic test and go about your day. Documentation and billing are also barriers - we are still working on a way to streamline this but I imagine once we can document findings (especially clips) in the chart + bill for services in a consistent way, POCUS will be a bit more ubiquitous.

What would you say to someone wanting to learn how to use ultrasound in this settings?

1. SCAN. There is a tendency for our new hires with no ultrasound experience to shy away from POCUS because they have no idea what they're looking at. There's only one way you can learn how to optimize windows, piece together anatomy, and identify pathology - and that's actually scanning. Even if you're going to order that CXR or echo - scan the patient and compare your findings.
2. SAVE YOUR CLIPS. Buy a USB drive and clip it to your badge. Look up YouTube videos on how to save POCUS images on your machine. Then find someone who knows more than you to QA your scans/interpretations.
3. USE RESOURCES. #POCUS hashtag on SOME, plug into SPOCUS, and plenty of sono tutorials like 5minsono etc.

Can you think of three pearls for critical care and inpatient ultrasound?

Don't let ultrasound replace good clinical judgment. Just because the IVC collapses doesn't mean you should throw away 10 other data points that say IV fluid is not a good idea. I love POCUS like the rest of y'all but at the end of the day it is another tool in our clinical toolbox that can be used for good or for... less good :)

There are a lot more causes of RV dilation and RV failure than just pulmonary embolism. Pulmonary arterial hypertension, left sided heart failure, lung disease can all make for a terrible looking RV (or even co-exist with PE). If you see all the fun things like RV dilation, D sign, McConnell's sign - assess for signs of chronically increased RV afterload (trabeculation, RV hypertrophy, etc.) and keep your differential broad and use your clinical decision rules before settling on PE as your diagnosis .

MEMBER SPOTLIGHT

...continued from page 8

And last - I agree with John. Lung ultrasound is the lost art of intensive care. I'm not sure how CXR won against LUS when sensitivity/specificity is worse in almost every lung pathology. PTX, presence of pulmonary edema, differentiating ARDS from pulmonary edema, lung infarct in PE, etc.

You two host the popular PulmCast podcast and website- what's in the future for your followers?

What John said!

What's in your scanny pack?

Butterfly, Sterile probe cover, Gel, Snacks (starburst currently)

...added During the pandemic:

Goggles, My n95 (in a paper bag)

Anything else you'd like to say to the general membership?

I was bit by the POCUS bug early on in my career. I dove into the FOAM community and learned everything I could. When there's only a few other colleagues interested in this stuff in the way you are, it can feel lonely and discouraging to keep trying to grow that skill set and push the boundaries of what we are capable of as clinicians.

Then we found SPOCUS. Turns out there are DOZENS OF US. DOZENS. People who are not satisfied with the status quo, refuse to accept the way we've always done things, dream big, and execute hard.

I am continually in awe of the knowledge and skills (in general - not just ultrasound) of the SPOCUS crew, as well as their willingness to lend their time, energy, and sometimes even their money to help other medical professionals become better clinicians.

Beyond excited to have a group of people around the country to walk with in this wonderful, insane, never ending path to mastery.

Keep scanning!

Jeremy Amayo (left) and John Heisler sporting the original "scannypacks©"

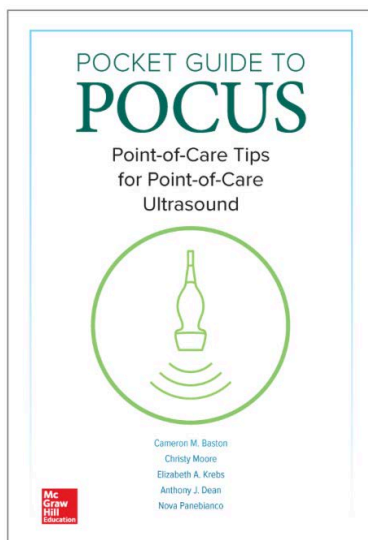


"Lung ultrasound is the lost art of intensive care. I'm not sure how CXR won against LUS when sensitivity/specificity is worse in almost every lung pathology."

Featured POCUS Resources



How could we have taken so long to feature the mother of all nerve block's site - Highland EM ultrasound! Let's face it this is THE site to use for initial learning and ongoing reference. This site has fantastically well done downloadable PDF guides for all kinds of point of care nerve blocks as well as numerous other procedural and diagnostic goodies. What are you waiting for!?! There's also a free iBook here.



This is really two parts. A easy to use downloadable reference book and an free image only app. Put together by folks from U Penn. Each section is laid out with Key Images, Acquisition Tips, Interpretation and Pitfalls, and Examples of Pathology. This is a well done, easy to use reference book and while it retails for ~ \$90 many of us are looking for creative ways to spend CME in the absence of in person conferences. eBook here and free videos google and itunes

Though primarily geared for the emergency clinician, the University of Ohio's POC U/S app is comprehensive enough to be useful for any POCUSonologist. It includes exam performance guides for aorta, cardiac, critical care, FAST, MSK, pelvic and vascular access. normal and abnormal sonographic anatomy and examples, but few videos and numerous pearls and pitfalls by application. Available from iTunes App Store and GooglePlay.



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

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Our Partners

