



Dear friends,

Here we are at the end of another year. For some it was great, for others it was terrible. One way or another, we have survived it, since we are meeting here and reading our Newsletter.

As it usually goes, this time of year is reserved for summing up our achievements. Also, to see what we missed, where we failed and what to do and expect in the next year. Well, the IPO certainly did well, despite all the troubles our members have experienced. We have many new members, our activities are well documented in the Newsletter, the website is up and working, colleagues are teaching and learning, and our Academy is producing new POCUS specialists and practitioners. Our members have participated on numerous international events. Also, we have published new books, research papers, case reports and training videos. For all of that, I congratulate you.

In hope for better days, more meetings, new successes in work and personal lives and peace in your countries and whole world, I wish you a Happy New Year. Stay well!

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MEET OUR LEADERS

Interview with Dr. Željka Popović
IPO Board member from Bosnia and Herzegovina
On behalf of IPO: Dr. Sava Vojnović



Dear friends,

We are at the end of another year, and in that year our organization had some notable activities. Our instructors trained numerous colleagues in the basics of POCUS diagnostics and despite the difficult global political circumstances, we had something to remember in 2022 and take it with us as a souvenir. Unfortunately, we did not have the IPO convention again, and we still hope that we will have it in the coming year. In the meantime, we will try to get to know each other through our new "IPO Newsletter" section, "MEET OUR LEADERS"

This time we have with us dr. Željka Popović, primarius, a family medicine specialist and POCUS specialist and instructor. Dr. Željka is a member of the Board of Directors of the International POCUS organization and head of the IPO-Bosnia and Herzegovina branch. She lives in Republika Srpska and works in a public health facility in Doboj.

IPO: Željka, good afternoon. Thank you for agreeing to this small interview. First of all, to clarify to our readers, we who live and work in this part of Europe know what the title "Primarius" means, but could you explain it to other colleagues? As far as we know, you were the youngest medical specialist in your country to receive this professional recognition.

Željka: Doctors are like wine, the older they are the better they are. This is not good when you are a young doctor because patients and colleagues approach you with prejudices based on the belief that you do not have enough knowledge or experience to treat many diseases. However, it is often forgotten that a young man has a great desire for knowledge and acquiring skills, and also the strength that only youth has. That was my driving force in my beginnings. I approach patients with great enthusiasm, but I have presented my experiences at numerous international and domestic congresses where I have appeared. Over the years, my colleagues recognized this and awarded me the honorary title of Primarius. Of course, the awarding of such a title is flattering, but it also represents an obligation to continue on the path of constant learning. My patients also recognized this, so today I am the leader of the largest family medicine team, and more than 60 patients pass through my office every day.

IPO: You became interested in the POCUS concept after receiving the title of "Primarius". Before that, you only did abdominal ultrasound examinations, if I'm not mistaken. Can you tell us what drew you to POCUS diagnostics?

Željka: During the studies, ultrasound was hardly even mentioned as a skill. I have to admit that the very concept of ultrasound examination seemed unreal to me, it was like "looking in the fog through blurred glasses". However, the only way to overcome your fears is to face them. I had the honor of learning from the best doctors who knew how to pass on their knowledge and also give me excellent literature as a guide through practice. Like all other skills, over time I acquired a routine and confidence in my work. I

wanted to "upgrade" my knowledge and by reading the literature, I noticed that I always return to one book, "Basics of ultrasound diagnostics for general practitioners". The language in which that book was written was completely different and more acceptable to me than other books. So I became interested in the author and I immediately realized that the reason for such understandable language was the specialty - author of this book was also a family doctor. It was Dr. Ivica Zdravković, who introduced me to the world of POCUS and the IPO. I immediately got in touch with him and even though we don't live in the same countries, I found myself very quickly in his office for education.

IPO: POCUS is not a part of basic medical studies in this region of Europe, nor is it a part of the training of future specialists in family medicine. In your opinion, why is this so and do you think it will change and in what direction?

Željka: There are many reasons. Performing any diagnostic method entails a greater degree of responsibility that not all doctors are ready to accept, especially if it is not accompanied by monetary satisfaction. Many public facilities do not have an ultrasound machine, and if you take into account the overload of doctors, they often do not have time for an ultrasound, despite their will. These are all arguments that I have heard very often. But if you ask me, where there is a will, there is a way, where there is no will, there is an excuse. On the other hand, I am deeply convinced that if we could travel only 50 years ahead in a time machine, this interview of ours would be funny to the doctors who would read it. Because imagine the situation 50 years ago when the average doctor had almost nothing else except a stethoscope. How amazed would such a doctor look at us if we told him about medicine as it is today.

IPO: Many colleagues will testify that their work has progressed and completely changed since they mastered POCUS principles, and that after POCUS they could not imagine returning to work without using this diagnostic method. How did POCUS affect your work?

Željka: When I think back to the period before POCUS, I even feel uncomfortable because the quality of my work has changed significantly since then. I think that every person, regardless of what he does, must find challenges in his work in order to break the monotony and stereotyped way of thinking, which is especially dangerous in medicine because it narrows your horizons and limits your way of thinking. If we take into account that in just three years most of what we know today will not be true, then you know that we should already think about our place in the future.

IPO: Currently, POCUS training is reduced to the activity of more or less recognized and accredited organizations or individuals. How do you see the development of POCUS education in your country?

Željka: I am currently in position of training young colleagues who have just graduated from university and are experiencing ultrasound diagnostics for the first time. Their joy and shine in the eyes of these young people gives me the strength to persevere in one of my life's tasks, which is to introduce POCUS into the curriculum of the medical faculty. So far, I have participated in the training of over 70 doctors in my country, which is quite a number if you bear in mind that my country has about 300 family doctors. The feedback has always been excellent and everyone who has gone through the training has given us support to continue with our goals. However, it is very difficult to change something that has existed for years and to change the established ways of thinking of people who decide on the school program.



IPO: The POCUS concept is often confused with superficial, quick and "orientational" examinations, which in terms of quality and content are far below the standard of conventional echosonography. Some justify this by the need to deal only with the so-called "gross diagnostics" and to leave the "details" to colleagues from other specialties (radiologists, cardiologists, etc.). Others, however, believe that POCUS should remain detailed and extensive, and that compared to "classic" echosonography, the only difference is that POCUS is performed next to the patient in a clinical environment, immediately and on the spot, without an appointment. Do you prefer shorter and simpler examinations focused on basic clinical questions, or do you prefer to stick to detailed protocols in ultrasound diagnostics?

Željka: The quality of anything depends on the dedication and quality of the person doing the work. I am of the opinion that radiologists, unlike family doctors, are deprived of the "background" and clinical examination that tells you what to expect and what to look for, thus shortening the time you need for a normal examination. Whether it will

be indicative or detailed depends on the patient's condition. If you have acute abdominal pain and you find a dissected aortic aneurysm, of course you will not be dealing with another pathology. On the other hand, the painful conditions of the patient will not allow you to have a detailed examination. Ultrasound is something that represents my personal satisfaction and I have noticed that the patients also like this approach. My work is based on the fact that I perform this type of examination every day, and after this type of work, both the patient and I are satisfied and there are no uncertainties.

IPO: You are a specialist in family medicine. Our organization has recently launched the so-called "PROBE" protocol, POCUS Rapid Overall Body Exam, which contains somewhat simplified echosonography procedures. What do you think about this protocol and what would you change in it? Does it meet the needs of your daily practice?

Željka: Each of the protocols is adapted to the conditions in which you are and the condition of the patient. I think the protocol you mentioned is excellent for systematic and preventive examinations. With PROBE, in addition to the physical examination, you get a broader picture of the patient's condition. I have noticed that patients have wrong belief that if the findings are normal, there is no need for a medical examination. I often like to say that "there is no such thing as a sick finding, only a sick man". I think we have all been in situations where a healthy person comes to you with excellent laboratory findings and no complaints, and you find a uterine tumor or some other asymptomatic tumor. I think that is why the PROBE protocol is very important and has its place in rapid diagnostics.



IPO: The POCUS revolution goes hand in hand with the development of ever smaller "handheld" probes, which are wirelessly connected to tablets, mobile phones, etc. All of this includes the development of artificial intelligence, which enables fast software processing of the obtained images. Do you use these probes, or do you prefer to use portable laptop-type systems, or classic cart-based ultrasound machines?

Željka: In the hands of a good player, every violin plays well. There is no such machine that can compensate lack of skill and knowledge, so it is completely irrelevant which device to use, but I will admit that a good device makes the job a lot easier. In my country, a wireless probe costs two average specialist monthly salaries, which makes it is unaffordable for most doctors. The portable ultrasound that I own is from the last century, and you will admit that the machines back then were made to last and not to break down when their warranty expires. So, in terms of quality, my "gizmo" (Željka used local word "sokočalo", laughing: "I'm really interested how you will translate this") as I affectionately call my machine, is in no way behind its younger descendants. If you a mobile EKG machine in addition to portable ultrasound, then you provide patient with complete diagnostics and therapy on the spot. The significance of this is even greater if you remember how long would a patient wait for scheduled diagnostic procedures in current slow system.

IPO: We know that you have been intensively using POCUS in your daily work for a couple of years now. Is there jealousy and resentment among other colleagues who have not learned POCUS? And how do your patients react to POCUS?

Željka: Vanity is a doctors' chronic disease, and in some it has metastasized. I must admit that I was afraid that fellow radiologists would think I was "stealing their work", that surgeons would look at my findings with suspicion. However, my doubts turned out to be completely unfounded. In all these years that I have been doing ultrasound, it has never happened that the surgeon won't operate because he doesn't respect my findings. Even fellow radiologists sent me patients when they were in a rush. To my great surprise, the jealousy came from my ranks, the ranks of family doctors! I have never paid attention to negative comments because I know that they are the product of weakness and lack of strength and will for the changes. If you look at things like that, then you don't judge people, you pity them.

IPO: You are one of the leading instructors of our organization. Where do you see IPO and POCUS in general in the next five or ten years? What are your personal plans related to POCUS diagnostics?

Željka: It has been scientifically proven that by revealing your plans, you reduce the level of serotonin in the brain and thereby lose the driving force and therefore the chance to realize your plans. I am now halfway through my working life and I think I am in the most productive years of my life. I have already said that one of my professional

goals is for as many doctors as possible to undergo POCUS training and for it to one day be included as a mandatory protocol in faculties and especially in the training of future specialists.

IPO: Finally, do you have any special message to IPO members and readers of our Newsletter?

Željka: POCUS is a skill that you lose if you don't cultivate it. POCUS is a very broad field and does not allow you to fall into monotony. No patient is the same. This is why it is necessary to constantly "upgrade" knowledge: I believe that every doctor of the future will have to carry a wireless probe instead of a stethoscope because, I will quote one of our colleagues, "why should we listen to the heart when we can look at it".

IPO: We thank you for this short conversation and wish you lot of success in the further promotion of POCUS diagnostics and in running the IPO branch in your country.

Željka: Thank you.

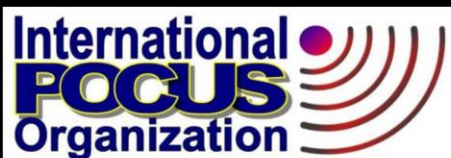
December 2022

International POCUS Organization

IPO Serbia - Central office & POCUS school, Požarevac

www.pocus.rs

Students in 2022... Congratulations all, and **HAPPY NEW YEAR!**



International POCUS Academy

Continuous & Online POCUS Education

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Recommended reading:

Point of Care Ultrasound:
The Critical Imaging Tool for the Critically Unwell

from

ICU Management & Practice, Volume 22 - Issue 5, 2022

This article aims to summarise and support a protocol-based approach with POCUS as a key imaging tool in the critically unwell patient, both from the initials 'A to E' and point of care assessment and for the ongoing management during an intensive care episode. It also highlights the role of POCUS within clinical examination and its essential utilisation in procedure guidance on critical care



Figure 1. The 'A to E' assessment of a patient using POCUS [Wilkinson J]

FUSIC
Focused Ultrasound in Intensive Care

IPO CANADA



Update from Canada

Hello all!

2022 SonoWebinars

The 10 SonoWebinars for 2022 were well received and attended.

Attendees from all continents registered for the live events and to watch the recordings



2022 Topics

- Comprehensive review of guidelines on deep venous thrombosis
- Push and squeeze: the lower extremity vein challenge
- The broader importance of the 11-14 week scan
- Ultrasound Assessment of the Diseased Liver – How new techniques are helping us image the difficult patient
- Adventures of an On-Call/ER Sonographer: Case Studies
- MSK peripheral nerve
- Reconnecting to Wellbeing

- Breast ultrasound
- Neonatal hips
- Three Dimensional Applications in General Sonography
- Importance of Nuchal Translucency Certification

For those who missed the live SonoWebinars, you can watch the recordings at <https://aprendecanada.com/sonoweinars>

2023 Topics

We are happy to release some of the topics for 2023

- Role of a mobile sonographer
- Update on fetal soft markers
- The role of the sonographer in POCUS
- Upper extremity arterial sonography
- Lower extremity arterial sonography
- Pediatrics
- Pelvic floor ultrasound
- Common accessory muscles and tendons seen in practice

For details in the new year, <https://aprendecanada.com/sonoweinars>

Aprende Canada Library

We are proud to present content on abdomen, OB/Gyne, MSK, vascular, and superficial structures. Check out our library at <https://aprendecanada.com/aclibrary>



Aprende Canada YouTube Channel

Leonardo Faundez, Canadian sonographer, founder and owner of Aprende Canada offers scanning tips and tricks on several topics. These videos are free and you can watch them at <http://www.youtube.com/c/AprendeCanada> and click on Free Aprende Canada ultrasound scanning tips videos

Aprende Canada

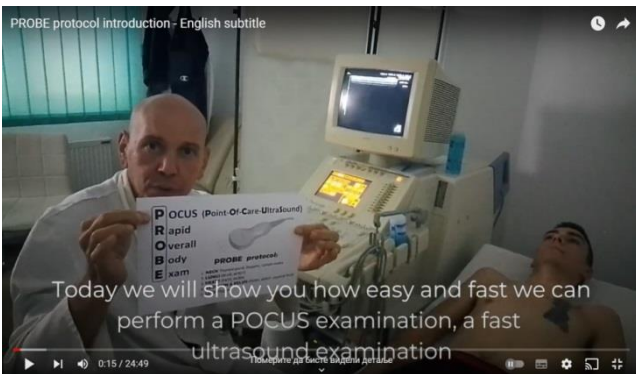
<https://aprendecanada.com/>
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PROBE Protocol

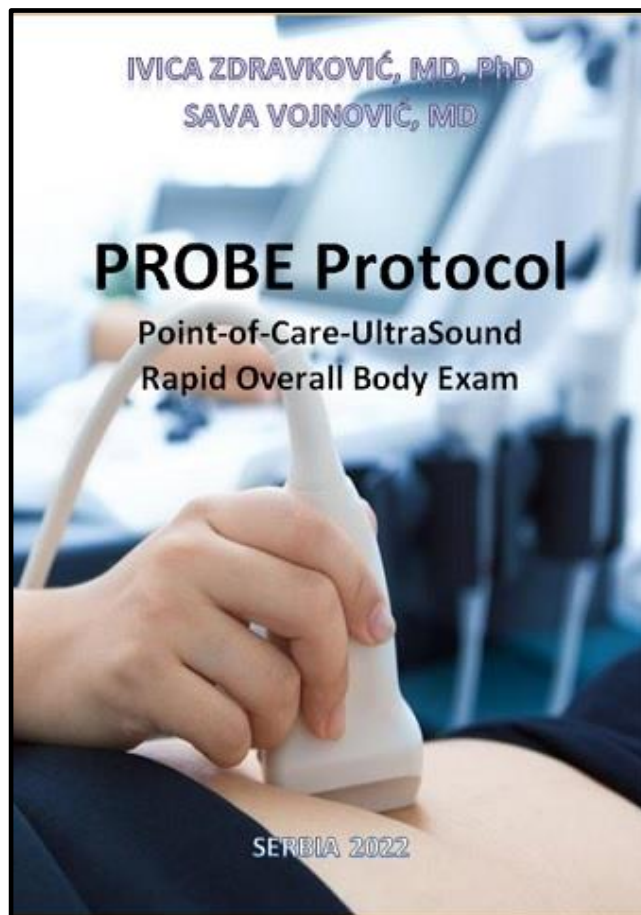
Dear friends, IPO Serbia has launched a new PROBE protocol, which is a "Head to Heel" method of echosonography. PROBE stands for "POCUS Rapid Overall Body Exam" and is based in unified eFAST, FATE, RUSH and BLUE protocols, and standard abdominal and thyroid US, with neck and legs Doppler.

PROBE Protocol on YouTube (English subtitle)

<https://www.youtube.com/watch?v=Iw5wD1tatk&t=731s>



PROBE protocol Book is available online (for now in Serbian, soon in English):



https://www.academia.edu/89557467/PROBE_protocol
https://pocus.rs/download/PROBE_protocol.pdf

News from HAITI



Under Prof. Dr Gédéon GELIN's leadership, a Sorbonne trained geriatric cardiologist and International Point-of-Care Ultrasound Organization (IPO) registered specialist, Haitian Assets for Peace International (**HAPI**) conducted a basic obstetrics ultrasound training for Felisane Health Center staff on weekends from the first week of October to the first week of December 2022. The duration was 30 hours. The staff (the General Practitioner in charge of the outpatient clinic and the nurses in charge of caring for pregnant women) are currently using ultrasound for pregnant women screening.



Training Report December 13, 2022 Basic Obstetrics and Gynecology Ultrasound Training

We also conducted a basic obstetrics ultrasound training for HAPI staff on weekends from the first week of October to the first week of December. The duration was 30 hours. The staff (the General Practitioner in charge of the outpatient clinic and the nurses in charge of caring for pregnant women) are currently using ultrasound for pregnant women screening. Mizak staff can practically do the following:

- 1) Confirm using the probe if there is pregnancy or not
- 2) Identify the lie and presentation of the fetus
- 3) Date the pregnancy using ultrasound measures like BPD, femoral length etc.
- 4) Check for the placenta position
- 5) Compute the heart rate
- 6) Compute the amniotic fluid quantity and say if it is abnormally low (oligohydramnios) or high (polyhydramnios) and refer the pregnant women to a specialist
- 7) Identify easily the head, the spine, the heart, the lungs, the stomach, the liver, the kidneys, the umbilical cord, the arms and the legs.
- 8) How to look for multiple pregnancies
- 9) Analyze the biophysical profile of the baby inside the mother

This training aimed at giving the staff the basic skills they need to run a basic ultrasound unit. This is the first step towards a more rigorous academic training.

The next step is the “advanced training in General ultrasound” to make HAPI staff “trainers” in General ultrasound. HAPI will be ready to officially submit a request to the World Federation of Ultrasound in Medicine and Biology to become a COE (Center of Excellency) for Ultrasound Training in Haiti by the end of 2024.

Although French is the teaching language of the country, this training Basic Obstetric has been conducted in creole, the spoken language of 99% of Haitians. Vision and commitment to Empowerment, sustainability and ethical responsibilities can have a big impact at the community level. Three months ago, no one in Mizak would have believed that obstetrics ultrasound services would be available at Felisane Health Center some day. Let us Hope that HAPI will find more donors to the support the this vision.



Latest news from POCUS MOSCOW

The last months of the outgoing year 2022 were very hot for the POCUS MOSCOW team. Our group made several visits to the different regions of Russia. Kaliningrad, Altai Republic, Dagestan, Sochi. Educational events were held in each.



Several big events deserve special attention.

One of the important visits was to the Republic of Belarus on November 16-18. The POCUS MOSCOW group held several workshops in the Point-of-Care Ultrasound direction. Such practical training aroused serious interest, with leading specialists in various areas of medicine participating as attendees. One of the goals of the visit to the Republic of Belarus was to move POCUS knowledge and skills for real work in hospitals and emergency medical care.



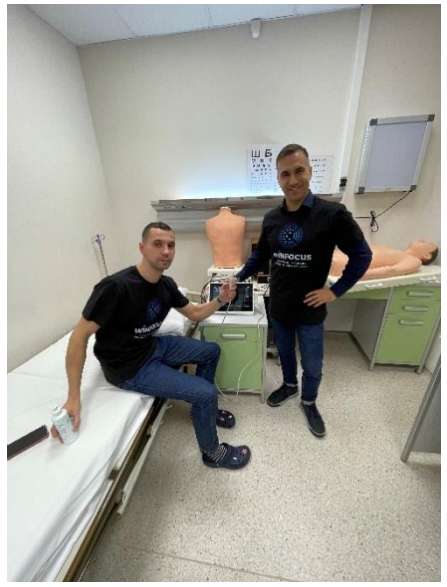
At the end of November POCUS MOSCOW visited the Republic of Kazakhstan once again. Under the auspices of the chief anesthesiologist of Karaganda region Vsevolod Lykhin conducted practical training of anesthesiologists and intensivists in the direction of POCUS. The main topics were ultrasound-guided vascular access, regional anesthesia under ultrasound, urgent protocols eFAST/RUSH.



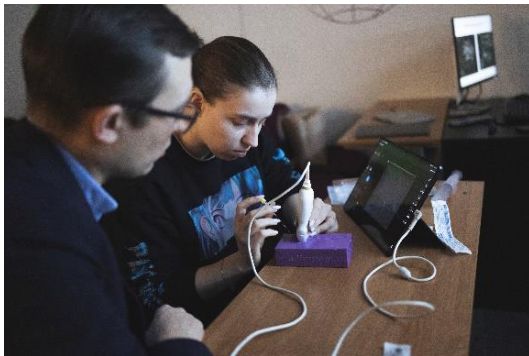


A unique event took place on December 2-3. POCUS MOSCOW took part in the international conference WINFOCUS. 22 countries in different time zones took part in the conference at the same time. During the conference, members of the POCUS MOSCOW team read important reports, followed by a FoCUS ECHO and ultrasound assessment of the lungs. Huge event in the direction of POCUS - our team is pleased with their participation and communication with colleagues from other countries.





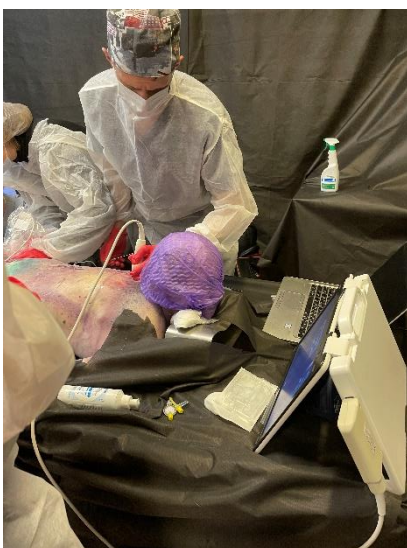
At the beginning of December POCUS MOSCOW took part in a new direction of VETPOCUS. This is a group of active veterinary anesthesiologists dedicated to promoting the concept of Point-of-Care Ultrasound in veterinary medicine. On December 9-10, they held a wonderful cadaver master class on regional anesthesia under ultrasound in small animals.



On December 17-18, Lykhin Vsevolod participated as a speaker at INDIA PAIN UPDATE 2022. The conference is dedicated to MSK Ultrasound in the treatment of chronic pain. A unique experience of teaching in a friendly country. New acquaintances with the world leaders of PAIN MANAGEMENT. Hope for further cooperation and colleagues' visit to Moscow.



The final educational event of POCUS MOSCOW this year was the cadaver course on regional anesthesia under ultrasound control in St. Petersburg. 2 days of practical work under real conditions of more than 20 blockades under ultrasound. Tired, but happy eyes of the attendees.





Our group has planned a huge program for the next year. Only an active position in the training of doctors will help spread the idea of POCUS around the world! Our goal is patient and physician's safety!

Contributed by IPO Prof. Vsevolod Lykhin, MD/PhD



After three years since its foundation, the IPO has 150 members from 9 countries on 5 continents