

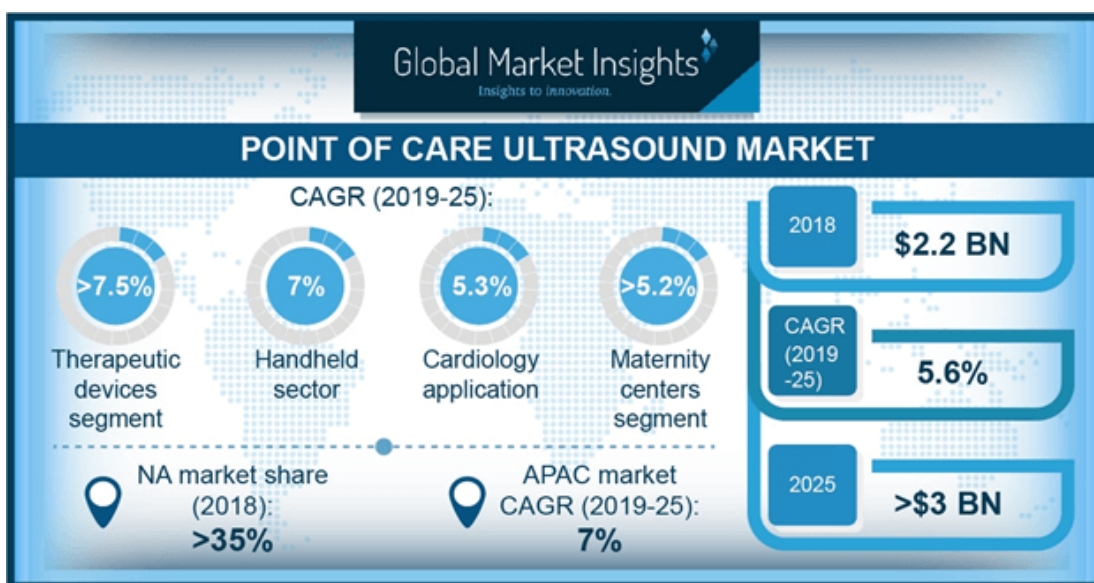


Dear friends,

Sadly, the Covid pandemic is still disabling us to meet and organize IPO international live events. We gained a few new member over the past several months. Our latest changes of the Bylaws will hopefully gather many newer IPO members, particularly POCUS practitioners such as specialist who use ultrasound on a daily basis (cardiologists, gynecologists, anesthesiologists, surgeons, etc...)

We invite all of our current and future members to send their articles and contributions to mail to: <mailto:ivicaserbia@yahoo.com>

We are open for more cooperation with POCUS friends and organizations all over the world. We invite interested enthusiasts to contact us for vacant positions of regional representatives. We also invite national, regional and other organisations for cooperation, exchange of website links, etc. Meantime, here are the predictions on growth of POCUS diagnostics market in next 4 years:



Source: [Global Market Insights](https://www.gminsights.com)

Editor: Dr. Ivica Zdravković,  
POCUS specialist and instructor,  
Serbia



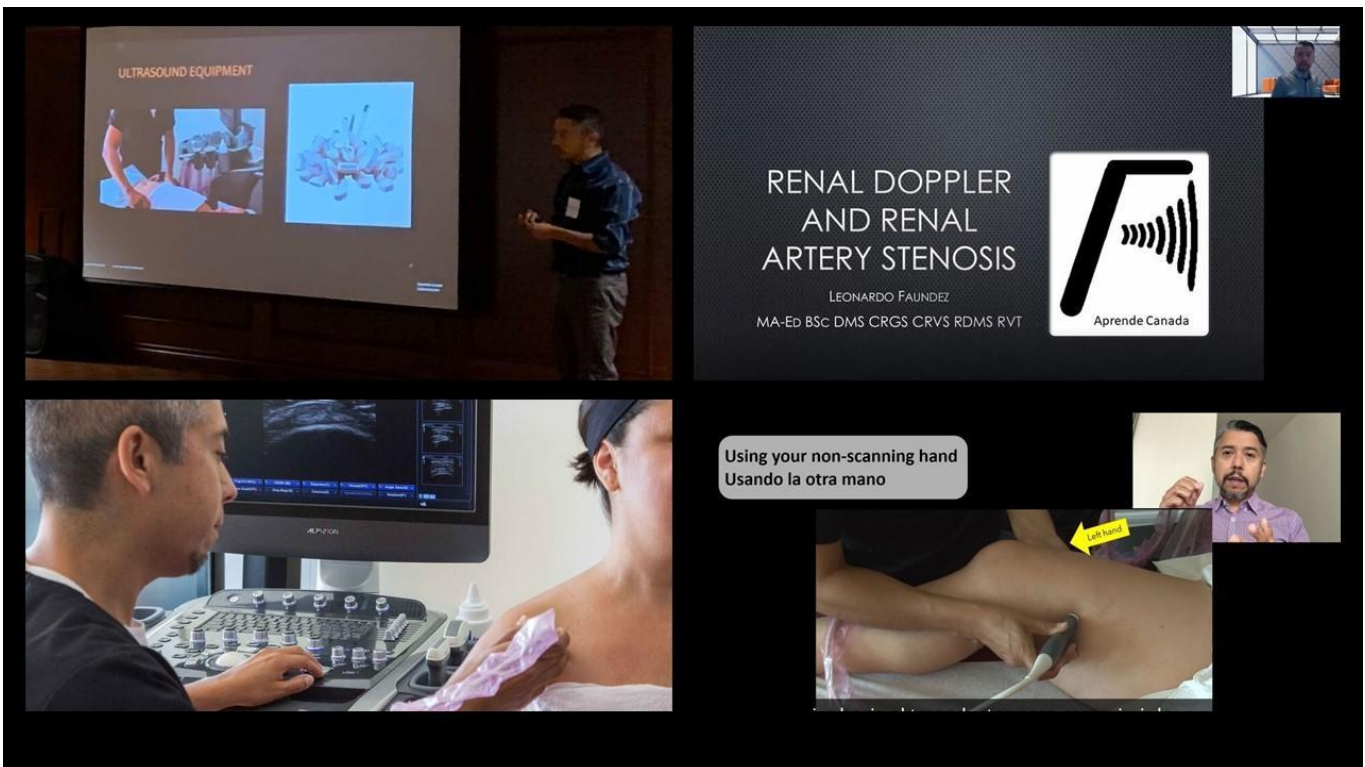
Since January, I have been busy with the third SonoWebinars by Aprende Canada series where I provide ultrasound education to professionals. Canadian and international speakers are invited to present on different topics ranging from sonography-based to relevant to the field of ultrasound.

The following are the first six SonoWebinars of 2021:

- 1) **January 30: Carotid Ultrasound seminar: Sonographic criteria for Carotid Stenosis: what do the main guidelines recommend? by Dr. Fernanda Costa, vascular surgeon and vascular sonographer from Brazil**
- 2) **Extracranial Carotid Ultrasound: A Sonographer's Perspective by me**
- 3) **February 20: Rare Case Studies of Fetal Head by Cathy Ridsdale, Canadian sonographer**
- 4) **February 27th: Fundamentals of Elastography in Ultrasound by Jennifer Decker, Canadian sonographer currently in Australia**
- 5) **March 27th: Ultrasound of the Scrotum by Anand Raansingh, Canadian**
- 6) **May 1st: Sore Feet on the Job: Prevention & Management by Sarah Higgins, Canadian chiropodist**

As in previous years, SonoWebinars have been well received by ultrasound professionals. All these SonoWebinars are recorded and available after their live date as well. Four more SonoWebinars are scheduled later in the year, starting in September.

Topics include patient communication, obstetrics/gynecology and musculoskeletal ultrasound.



Leonardo Faundez, MA-Ed BSc, DMS CRGS CRVS RVT RDMS  
Canadian sonographer and Aprende Canada founder/owner  
<https://linktr.ee/aprendecanada>

# POCUS: Point-Of-Care-UltraSound In Practice Of GP/Family Medicine Doctors

March 2021, Serbia

Ivica Zdravković, MD, Primarius  
GP specialist, POCUS specialist,  
GP Medical Office "ID MEDICA", Pozarevac, Serbia

## Summary:

Review of the importance and scope of POCUS diagnostics in a private general practice medical office.

Keywords: POCUS, ultrasound, general practice, family medicine

## Aim od study:

Statistical analysis of POCUS examinations performed in the medical office "ID MEDICA" over the period between February 21st 2021. and March 20th 2021. Evaluation of the importance of POCUS diagnostics for the work of general practitioners/family medicine doctors.

## Method:

Analysis of number and types of POCUS examinations performed during one month.

## Results:

During one month of work of the medical office, 234 examinations (visits) of patients were recorded. These patients were examined by the author of the study. Examinations performed by other employed doctors in the office were not included in the statistical presentation.

During these 234 visits to the doctor, 327 POCUS exams were performed. On average, this is about 1.4 POCUS exam per patient, or about 14 POCUS exams per 10 visits to the doctor. The office had 20 working days during the observed time. It means that there were averagely 11.7 patients per day per physician/author of this study and an average of 16.3 ultrasound exams per day. About 10% of visits to the doctor did not require the use of POCUS diagnostics (these were visits for respiratory infections, lumbar syndrome, dermatological problems, mental disorders, etc.). About 5% of those examined had a systematic examination according to the concept of WBU: Whole Body Ultrasound. These patients had 5 or 6 ultrasound and Doppler exams at once.

The number of ultrasound exams by type/region was as follows:

1. Ultrasound of the abdomen and small pelvis: **88** (in 80 patients a complete examination, in 8 patients a targeted examination of only the urinary tract, only the small pelvis, or only the upper abdomen).
2. Ultrasound of the heart: **84** (of which 77 with detailed examinations and 7 focused, so-called FATE examinations)
3. Thyroid ultrasound: **40** examinations, of which about half as a part of the examination of the soft tissues of the neck, or together with Doppler exam of neck blood vessels.
4. Breast ultrasound: **28** exams, 27 in women and one in men with mastodynia and gynecomastia.
5. Doppler of legs blood vessels: **26**
6. Doppler of neck blood vessels: **24**
7. Ultrasound of the musculoskeletal system (about 2/3 examinations were knee ultrasounds, about 1/3 exams were of the shoulder joint, hip in adults, as well as examination of muscles and tendons for ruptures, etc.): **21**. These exams often included ultrasound-guided arthrocentesis, most often for the purpose of removing knee hydrops and Baker's cyst, with subsequent intra-articular administration of corticosteroids with anesthetic.

8. Other examinations: targeted examinations of subcutaneous soft tissues, lymph nodes, scrotal ultrasound and ultrasound targeted examination of the lungs - LUS: **18**

### **Discussion:**

Only about 10% of visits to the doctor did not require the use of POCUS diagnostics (symptoms and pathology were such that none of ultrasound methods was of no importance for the diagnostics). About 5% of those examined had a systematic examination according to the concept of WBU: Whole Body Ultrasound.

The frequency of individual ultrasound examinations speaks of the most common pathology that requires POCUS diagnosis:

1. Digestive problems
2. Abdominal pain
3. Prostate problems
4. Urogenital pathology
5. Heart problems
6. Chest pain
7. Preventive heart examinations
8. Neck pain, difficulty swallowing, symptoms of hypothyroidism or hyperthyroidism, or follow-up and preventive examination of the thyroid gland
9. Breast pain, nodules, breast secretions, breast augmentation, or follow-up and preventive breast examinations
10. Swelling of the legs, thrombophlebitis, feeling of cold feet, claudication, paresthesia, or follow-up and preventive legs blood vessels Doppler
11. Dizziness, instability, dizziness, crises of consciousness, headaches, previously detected stenoses, follow-up and preventive neck blood vessels Doppler
12. Pain and swelling of the knee

The most common exams were ultrasound of the abdomen and small pelvis, ultrasound of the heart and ultrasound of the thyroid gland. This should be kept in mind when planning future POCUS physician training programs/curricullums.

### **Conclusion:**

The scope of the use of ultrasound in the regular work of general practitioners can be extremely large. The number of 327 ultrasound examinations performed during 20 working days in the author's office speaks in favor of the great benefit of intensive training of general practitioners (young doctors, but also experienced specialists) in POCUS diagnostics. Statistical extrapolation resulted in the number of over 3,500 different ultrasound examinations that a general /family medicine specialist will perform annually.

The most common exams during the period analyzed in this study were abdominal and pelvic ultrasound, cardiac ultrasound, and thyroid ultrasound. Good planning of POCUS education and acquisition of economically viable skills will improve the reputation of general /family medicine specialists, as well as their earnings under the circumstances where providing medical /health care became a market category.

The POCUS concept enables fast diagnostics, efficient ordination of therapy, less referrals for consultative examinations by other specialists, and sometimes saving crucial time and prompt sending to other specialists in caseses such as detection of malignancy, diseases that require urgent surgical, urological or gynecological treatment and monitoring, diseases which must be treated by vascular surgeon, endocrine surgeon, etc.

Finally, this review clearly illustrates the vision of the practice of the GP/family doctor, as promoted by the author. In that vision (and in author's everyday medical activity) POCUS becomes truly a "stethoscope of the 21st century" and a treasure in the hands of a trained professional, and primary health care finally becomes a true "backbone of the health system".

## IPO regional teaching centre - SERBIA

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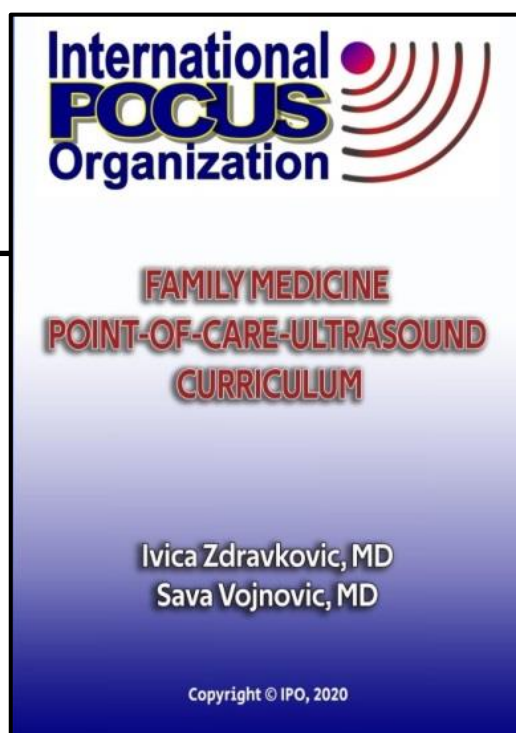
We are proudly announcing certification of another POCUS specialist, Dr. Kristina Stević. She has successfully went through all exams in Serbian regional IPO center, where she had spent past 10 months, intensively learning various POCUS methods. Congratulations.




Dr. Krisina Stevic,  
POCUS specialist, ID MEDICA, Serbia



With deep sadness I am informing our IPO members that one of my most respected mentors, prof. Željko Marković, PhD, sadly passed away after a fight with Covid-19. Prof. Željko was national Expert in radiology, Head of Radiology Department on Medical Faculty of Belgrade University, teacher on national ultrasound courses and president of Association For Medical Imaging of Serbia. His death is a huge loss for POCUS enthusiasts in Serbia, whom he fully supported. Rest in peace, dear friend.



New book with IPO Family medicine curriculum is now available in English (PDF). Author of the book is Dr. Ivica Zdravkovic, with his assistants Dr. Sava Vojnovic. You can purchase PDF book on our website: <http://www.pocus.rs>

**POINT OF CARE**   
**ULTRASONOGRAPHY** *Dr. Ivica*

# POCUS MOSCOW News



*Vsevolod Lykhin, 23.12.1981, Moscow, Russia  
Botkin Hospital, Neuro ICU  
Hospital Anesthesiology Specialist, Medical Simulation Centre Instructor,  
International POCUS Organization Instructor.*

## **Two weeks of mass training. POCUS MOSCOW Group with Philips Foundation POCUS ultra-portable equipment donation project.**

Participation in charity projects is always a great opportunity to gain new skills in mass training. The training program had two parts in different districts: **The Republic of Buryatia, West Siberia and Samara region, Volga Federal District.**

58 Philips Lumify ultrasound probes were donated to Buryatia. The training program has been specially prepared for physicians who are new to the point of care ultrasound concept. We included different specialties: surgeons, ICU, anesthesiologists, family medicine, emergency physicians.

The training program were structured as 5 topics for 5 days.

### **Training program agenda:**

Day 1. Lung Ultrasound (A,B,C-alphabet, COVID-19 LUS, PTX)

Day 2. Emergency Ultrasound Protocols (eFAST, RUSH)

Day 3. Focus TTE + Vascular (aorta, DVT)

Day 4. Biliary, kidneys, obstetrics

Day 5. Reacts application for Telemedicine. Live demonstration of tele-ultrasound capabilities: Ultrasound Guided vascular acces and regional anesthesia were demonstrated from local Hospitals by trainers)

**Every day we worked with 45 physicians from dusk till dawn. 10 POCUS stations were organized with 5 physicians on each. Unique telemedicine capabilities were provided by Lumify Reacts. It gave us an online training opportunity. Also we can make post-training control of participants' skills and knowledge. Clinicians can share their ultrasound study in live with trainers.**

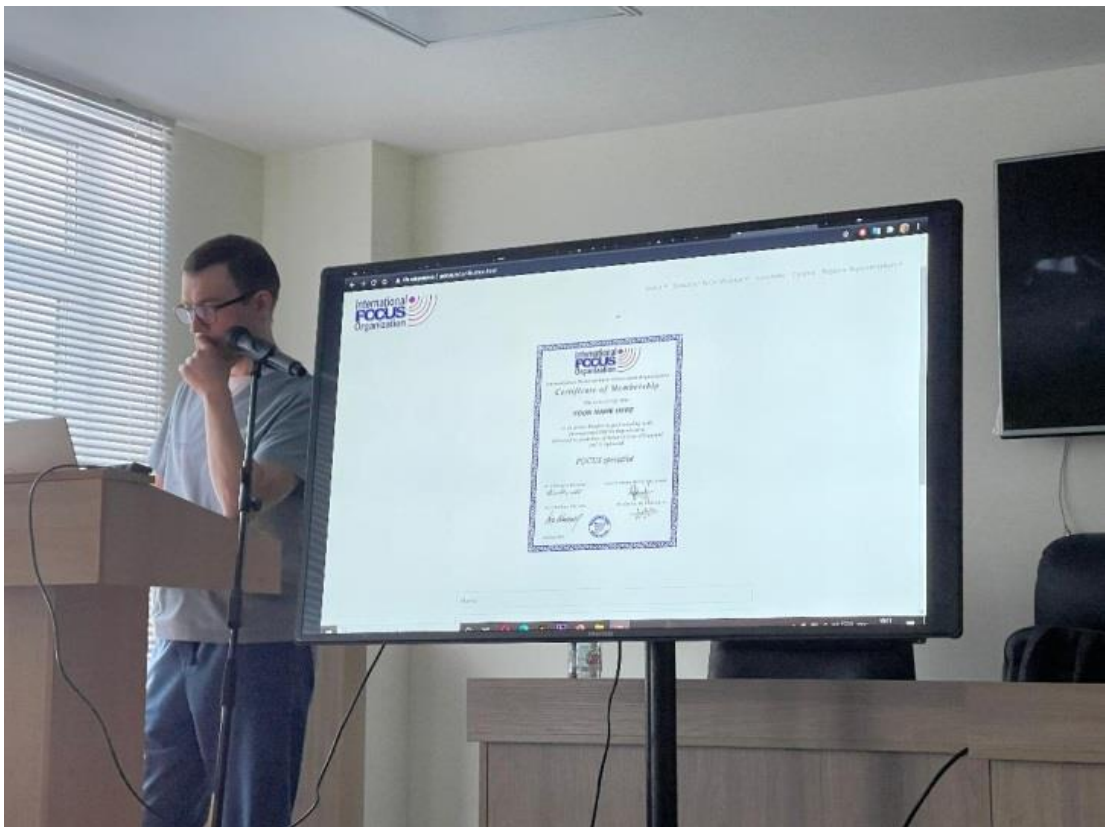
**The second part of the project took place in Samara region. 48 physicians from different specialties participated in education program. They came from many regional hospitals. This time we had 50 Lumify Ultrasound Systems. The main audience were anesthesiologists and ICU phisicians, so we add the special topic "ultrasound guidance" in the agenda. It has included Ultrasound Guided Regional Anesthesia and Vascular Access blocks.**

**As a result of these trainings we received a positive feedback from physicians about the power of POCUS.**

**It was the first experience for POCUS MOSCOW Group with big training program and we are grateful to the Phillips Foundation for this opportunity. Those hard-working days have**

learned us the good team working and communication skills. Such programs carry a huge contribution to the development of Pocus concept in remote regions of Russia.

High qualified team with the good structured training materia make a great contribution to the rapid and high-quality training of various groups of specialists. We plan to provide Post Training Support and recive the most interesting case studies from Lumify systems. Participants who share the sufficient number of ultrasound loops will get IPO certificate.





**Recommended links:**

[www.pocus.rs](http://www.pocus.rs)

[Philips POCUS education](#)



# Ultrasound Training For Medical Pneumologists Residents In Haiti



Ultrasound is a practical skill that needs to be learned during the training of the 21<sup>st</sup> century pneumologists. **International Point-of-Care Ultrasound** Specialist Instructor, Dr Gédéon GÉLIN, delivered an intensive academic and practical one-day lung ultrasound training for medical Pneumologists Residents in Haiti on March, 29, 2021. The theoretical part covered some important concepts in ultrasound physics, lung ultrasonography and basic Echocardiography. Hands-on training was also held.

The picture shows 2<sup>nd</sup> and 3<sup>rd</sup> years medical residents observing at Dr Gelin doing a lung ultrasound for a patient.

## Get certified through IPO courses:

Get your certificate in 2021!



Contact us from: [www.pocus.rs](http://www.pocus.rs)

**WELCOME!**

