



POINT-OF-CARE-ULTRASOUND (POCUS): WHAT'S HAPPENING IN BRITISH COLUMBIA

RURAL POCUS STRATEGY

DECEMBER 2021

POCUS brings a powerful tool—**ultrasound**—to practitioners to use at the bedside. When incorporated into the physical exam, POCUS adds immediate imaging to a clinical assessment, vastly increasing diagnostic accuracy and procedural safety. Use of POCUS is exploding from its origins in the Emergency Department to diverse specialties, like obstetrics, anesthesia, ICU and primary care.

And for BC's First Nations and rural / remote areas with limited access to diagnostic imaging, POCUS can reduce patient travel and address rural and Indigenous health care access inequities.

RCCbc is engaged in a number of initiatives to expand and support skilled and safe POCUS use throughout rural BC. Read on to learn about POCUS in BC and how RCCbc is developing the Rural POCUS Strategy.

POCUS EDUCATION IN BC

POCUS CPD courses:



The HOUSE course is BC's homegrown POCUS course, complimenting courses offered by [CPOCUS](#). This [UBC CPD](#) course has taught POCUS in dozens of rural communities to over 1000 clinicians. HOUSE also teaches the EM course to rural UBC family practice residents.

HOUSE has three streams: EM, OB and IM (emergency, obstetrical and internal medicine applications) with courses customizable to include one or more of these. The associated [BC POCUS website](#) is a good how-to resource.



HOUSE EM



HOUSE OB



HOUSE IM

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POCUS Residency Fellowships:

- **Emergency Medicine (EM):** considered a core competency in EM, this 9-month POCUS Fellowship develops advanced scanning and leadership skills. The Fellowship is offered at Vancouver General (VGH), Royal Columbian and St. Paul's Hospitals. Check out the website [here](#), as well as the associated POCUS resource site for [VanPOCUS here](#).
- **Internal Medicine (IM):** based at VGH, the UBC IM POCUS group (comprised of Drs. Shane Arishenkoff, Katie Wiskar and Nathan Chan) offers a 6-12 month POCUS fellowship for senior residents, in addition to electives for IM residents. The UBC [IM POCUS website](#) is another excellent FOAMed* for POCUS.

VanPOCUS

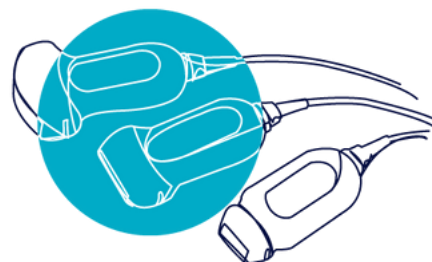
*FOAMed = Free Open Access Medical Education, See <https://litfl.com/foam-free-open-access-medical-education/>



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POCUS EDUCATION IN BC



POCUS / Emergency Fellowship for Rural Emergency physicians:

The Nanaimo and the Northern Emergency Education Program (NEEP / NoEEP) provide family physicians practicing in rural BC with a funded, three-month, full time fellowship in Emergency Medicine with deep integration of POCUS alongside comprehensive emergency skills enhancement.

Funded by the Rural Education Action Plan (REAP), learners can begin with no POCUS skills and return to their community as a certified independent practitioner with some advanced skills and teaching experience to act as a local resource.

THE IN POCUS PROJECT

To improve ultrasound access early in the pandemic, the Intelligent Network for Point-of-Care Ultrasound (IN PoCUS) was launched as a Canada Technology Supercluster project. Led by Providence Health Care, partnering with RCCbc, the University of British Columbia (UBC), Clarius Mobile Health, and Change Healthcare, IN PoCUS provided 60 subsidized handheld scanners to physicians across the province.



IN PoCUS physicians have performed thousands of scans, many with suspected COVID-19, uploading acquired images to a cloud-based image archiving system. A research evaluation on the impact on patient care is currently underway under Principal Investigator, Dr. Jude Kornelsen of the Centre for Rural Health Research.



“The handheld ultrasound assessment raised clinical suspicion for COVID-19 before lab diagnosis and led to my decision to continue isolating the patient. If I’d released the patient ... an outbreak could have easily occurred.”

UBC UNDERGRADUATE CURRICULUM

Year 1 and 2 students gain POCUS exposure in four sessions embedded within clinical skills, but little beyond that. Efforts are underway to advocate for greater exposure through the adoption of the Canadian Medical Student Ultrasound Curriculum, a national consensus set of US learning objectives published in July 2020,

The Canadian Medical Student
Ultrasound Curriculum

A Statement From the Canadian Ultrasound Consensus for
Undergraduate Medical Education Group



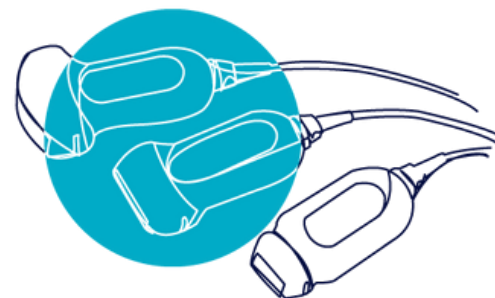
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UBC UNDERGRADUATE CURRICULUM

UBC Student Ultrasound Club: the next generation!

This passionate club is developing a "peer-to-peer" teaching model with senior students teaching POCUS to their colleagues. Students at the Vancouver and Northern Medical Programs receive mentoring from POCUS educators. Special thanks to Drs. Dan Kim, Xin Liu, Irina Sainchuk and Christina Boucher.

"We are now able to significantly increase the opportunities for students to get exposure to ultrasound and gain the essential ultrasound skills to start implementing them into clinical practice."

RYAN SANDARAGE, MD CANDIDATE 2022
CLUB CHAIR

In August 2021, the Club was donated an ultrasound machine from the Haida Gwaii physician group.



Student peer scanning sessions at the Medical Student Alumni Centre, Vancouver (Oct 2021).
Shown

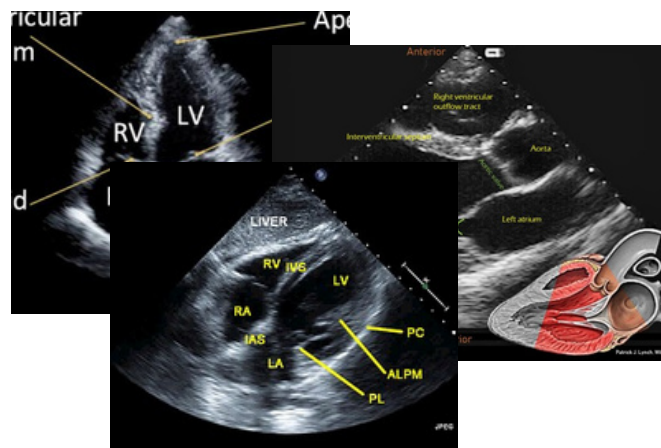


Mentoring sessions at the University Hospital of Northern BC, Prince George (Oct 2022). Present: Drs Xin Liu and Irina Sainchuk, and 6 members of the Northern Medical Program US Club!

New UBC Student POCUS elective developed

A new POCUS elective is being piloted in 2022 for Year 3 or 4 medical students, with two streams—an urban experience with the UBC IM POCUS team, and a rural elective based in Haida Gwaii (where POCUS use is deeply integrated in this remote BC setting, with many machines and instructors).

Students will create a portfolio of cases and get a taste of what it is like to be in a POCUS Fellowship.





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RURAL POCUS ROUNDS

Virtual POCUS education from UBC CPD

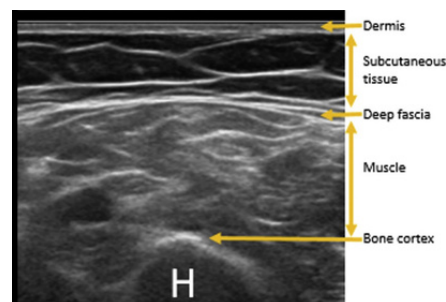
Following a popular and successful summer pilot, UBC Continuing Professional Development is offering a monthly series on various POCUS applications, taught by rural BC experts over Zoom,

Fall sessions:

Oct 15: MSK complaints - POCUS vs X-ray | Dr T Morton
Nov 19: SBO and POCUS | Dr Kevin Fairbairn
Dec 17: Ocular Ultrasound | Dr Virginia Robinson

Sessions for 2022 will cover cardiac, lung and more. See the UBC CPD website for updates and registration. This initiative is funded by the RCCbc.

Real-Time Virtual
POCUS Practice
Support
with
Dr. Virginia Robinson
Tuesdays
8am to 9am
<https://rccbc.zoom.us/j/my/rts.pocus>



Screenshot from Dr Morton's MSK session

RURAL POCUS SURVEY

Understanding the current use of POCUS in BC

This fall, the RCCbc launched a survey to nearly 2,000 rural family practitioners and specialists to understand the use of and supports needed for POCUS in rural BC. Data collection is set to close in December 2021 with analysis and results to be shared throughout 2022.

Principal investigators are Drs. Tracy Morton and Virginia Robinson, Co-Leads of RCCbc's Rural POCUS Strategy*, with input from Drs. Dan Kim, Paul Olszynski, Todd Alec and Jason Curran.

Special thanks to RCCbc's Jason Curran and Tracey DeLeeuw for creating and editing the survey.

- **Who is using POCUS and for what applications?**
- **What are the barriers to including POCUS in clinical assessments?**
- **What practice supports do rural clinicians need?**
- **How might clinicians use an image storage and sharing platform?**

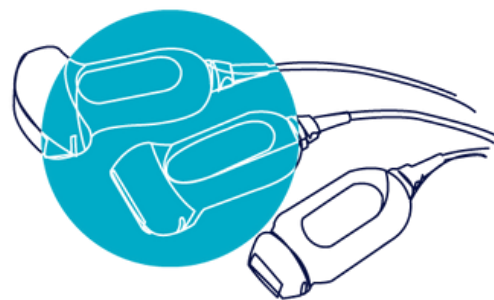
*Approvals from UBC Behavioural Research Ethics Board (H21-01958), Interior Health, Northern Health and Island Health



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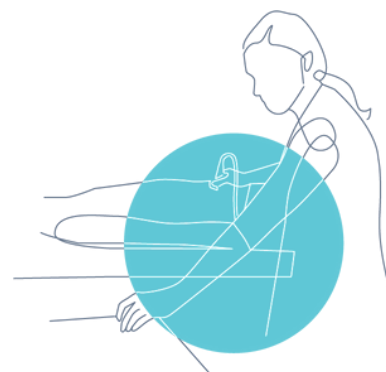


RCCBC'S RURAL POCUS STRATEGY

Vision: Every British Columbian is cared for by a skilled POCUS clinician.

It is no exaggeration to state that POCUS can transform patient assessment, likened to the improvements in medicine when the stethoscope was introduced in 1812. Indeed, the physical exam has changed little since then. But the barriers to more widespread adoption of POCUS require systems-level change. Hence, the Rural POCUS Strategy.

Earlier this year, a Working Group of BC's POCUS leaders was created to understand and address these barriers and help develop the Strategy, a roadmap establishing education priorities and practice supports. Skilled POCUS use is a powerful tool to bring to rural and remote and Indigenous communities, improving care in areas without ready access to diagnostic imaging.



Every British Columbian is able to receive care from a skilled POCUS clinician.

Contact us:

Tracey Deleeuw
Dr. Virginia Robinson, Fernie
Dr. Tracy Morton, Haida Gwaii

Project Administrator
Medical Co-Lead
Medical Co-Lead

tdeleeuw@rccbc.ca
vwrcclimb@gmail.com
tracy.morton@northernhealth.ca

Rural Coordination
Centre of BC



#620 - 1665 West Broadway
Vancouver, BC V6J 1X1
ph: 604 738-8222
Toll Free: 1-877-908-8222
fax: 604 738-8218

Email: info@rccbc.ca
Twitter: [@rcc_bc](https://twitter.com/rcc_bc)
Facebook: [@RuralRCCbc](https://www.facebook.com/RuralRCCbc)
Web: www.rccbc.ca
Youtube: [@TheRCCbc](https://www.youtube.com/@TheRCCbc)

POCUS Strategy and the Truth and Reconciliation Commission of Canada

The Rural POCUS Strategy and RCCbc are committed to reconciliation with Indigenous communities. We seek to answer the **TRC's Calls to Action**, seven of which pertain to health care. By improving health care and addressing longstanding health-related inequities, we can contribute to reconciliation.



National Centre for
Truth and Reconciliation
UNIVERSITY OF MANITOBA

To learn more about the Truth and Reconciliation Commission (TRC) as well the Calls to Action, please visit the National Centre for Truth and Reconciliation <https://nctr.ca/>