

# Primary Care Ultrasound: Lessons Learned in 10 Years of Ultrasound Training in a Rural Residency

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## POCUS

Point-of-care Ultrasound

# Outline

1. Personal journey with POCUS
2. Rotation journey with POCUS
3. Implementation
4. Curricular development
5. Lessons learned

## Poll Question #1

Do you currently use POCUS in your practice?

A. Yes

B. No

## Poll Question #2

Do you currently use POCUS in your practice for more than OB?

- A. Yes
- B. No

5

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## Background

2014 Council of Academic Family Medicine Educational Research Alliance (CERA) survey:

- Only 2.2% of FMR reported an established US curriculum
- However, 29% reported having started one in the last year
- 11.2% reported being in the process of starting curriculum
- 40% reported no plans of establishing US training

Hall JW, Holman H, Bornemann P, Barreto T, Henderson D, Bennett K, Chamberlain J, Maurer DM. Point of Care Ultrasound in Family Medicine Residency Programs: A CERA Study. *Fam Med* 2015; 47(9): 706-711. <http://www.stfm.org/FamilyMedicine/Vol47Issue9/Hall706>

6

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# Personal Ultrasound Experience

... the narrative backdrop of the lessons learned...



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## Personal Ultrasound Journey

- Residency (my own)
- First years of practice
- Program Director role(s)

# Private Practice Implementation

- ROI on the machine
- CME - didactic and hands-on
- Implementation
  - scanning
  - documentation
  - over-reads
  - hiring a technician

# Residency Implementation

- Hospital setting
- University setting
- RTT / Rural Health Clinic setting
- THC / FQHC setting

# One major “take-away” (foreshadowing)

... you need a faculty ultrasound champion

## Curriculum Development



# Curriculum Development

- Shadowing
- Scanning
- What to read?
- What to work on first?
- Mentoring
- Evaluation

# Our Curriculum

- (see handout)
- ever-evolving
- flexible and individualized

# Workshops

- orientation
- academic afternoons (early)
- hands-on workshops (later in year)
- OSCEs

## SonoSim Curriculum

<a href="#">Leg-Venous Module</a>	<a href="#">Details</a>	<a href="#">Introduction to MSK Module</a>	<a href="#">Details</a>
<a href="#">Foot Module</a>	<a href="#">Details</a>	<a href="#">Renal Module</a>	<a href="#">Details</a>
<a href="#">Ankle Module</a>	<a href="#">Details</a>	<a href="#">Bladder Module</a>	<a href="#">Details</a>
<a href="#">Knee Module</a>	<a href="#">Details</a>	<a href="#">Female Pelvis Module</a>	<a href="#">Details</a>
<a href="#">Hip Module</a>	<a href="#">Details</a>	<a href="#">Scrotum Module</a>	<a href="#">Details</a>
<a href="#">Hand &amp; Finger Module</a>	<a href="#">Details</a>	<a href="#">Prostate Module</a>	<a href="#">Details</a>
<a href="#">Wrist Module</a>	<a href="#">Details</a>	<a href="#">Lungs Module</a>	<a href="#">Details</a>
<a href="#">Elbow Module</a>	<a href="#">Details</a>	<a href="#">Aorta/VC Module</a>	<a href="#">Details</a>
<a href="#">Shoulder Module</a>	<a href="#">Details</a>	<a href="#">Heart Module</a>	<a href="#">Details</a>
<a href="#">Spine Module</a>	<a href="#">Details</a>	<a href="#">Breast Module</a>	<a href="#">Details</a>
<a href="#">Leg-Arterial Module</a>	<a href="#">Details</a>	<a href="#">Spleen Module</a>	<a href="#">Details</a>
<a href="#">Cerebrovascular Module</a>	<a href="#">Details</a>	<a href="#">Pancreas Module</a>	<a href="#">Details</a>
<a href="#">Thyroid Module</a>	<a href="#">Details</a>	<a href="#">Liver Module</a>	<a href="#">Details</a>
<a href="#">Upper Airway Module</a>	<a href="#">Details</a>	<a href="#">GI Tract Module</a>	<a href="#">Details</a>
<a href="#">Arm-Venous Module</a>	<a href="#">Details</a>	<a href="#">Biliary Tree Module</a>	<a href="#">Details</a>
<a href="#">Arm-Arterial Module</a>	<a href="#">Details</a>	<a href="#">Adrenal Glands Module</a>	<a href="#">Details</a>
<a href="#">Soft Tissue Module</a>	<a href="#">Details</a>		



# Recommended Books

*Point of Care Ultrasound* by Soni, Arntfield, and Kory. (1st edition, 2014; Kindle or Inking version)

*Introduction to Bedside Ultrasound* by Matthew Dawson and Mike Mallin (iBooks or Inking only)

## Field Notes

### Ultrasound Evaluation Field Notes

Name of Learner: \_\_\_\_\_ Date: \_\_\_\_\_

Level: MS-3 / MS-4 / PGY-1 / PGY-2 / PGY-3 Studies Today: \_\_\_\_\_

Approach to the patient:

- Did the learner introduce her/himself to the patient, and her/his role?
- Did the learner explain the procedure to the patient?
- Feedback: \_\_\_\_\_

Hand-eye Coordination:

- Did the learner have appropriate spatial recognition / hand-eye coordination for her/his level of training?
- Feedback: \_\_\_\_\_

Knobology:

- Did the learner know the basic transducers and knobs to use?
- Feedback: \_\_\_\_\_

Anatomy:

- Did the learner know the basic anatomy relevant to the study?
- Feedback: \_\_\_\_\_

Protocols:

- Did the learner know the basic pictures to take for this study?
- Feedback: \_\_\_\_\_

Overall:

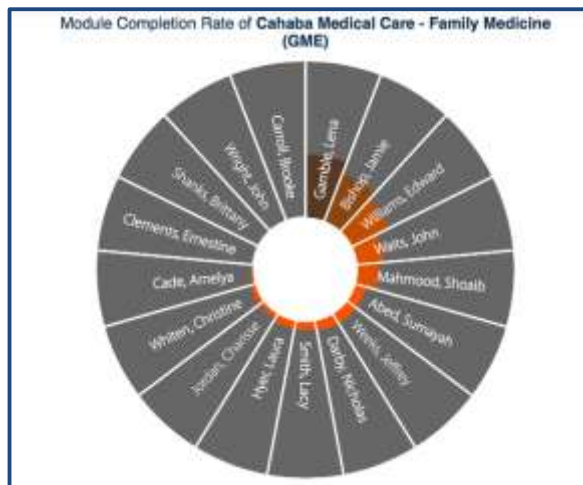
- How did the learner perform overall on this study?

Evaluator: \_\_\_\_\_

# Our OSCE

- (see handout)
- essential to evaluate

# Sonosim Dashboard



# Our Data

- Alumni using ultrasound
- PGY-3s
- PGY-2s
- PGY-1s

# Lessons Learned



# Ultrasound Legal Issues

- Ultrasound privileging
- POCUS vs. Departmental Ultrasound
  - .... or is ultrasound more like an MRI or more like a stethoscope?
- Credentialing issues
  - National society guidance and turf-wars
  - clinic
  - hospital
- Malpractice issues
- Reimbursement issues

23

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## Facilitated Discussion



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# Who is stuck?

... and Why?

- Ideas from the group

# Who has had success?

... and How?

- Questions from the group

## Poll Question:

Enter your email address to be included in any follow-up communication from the presenter(s).

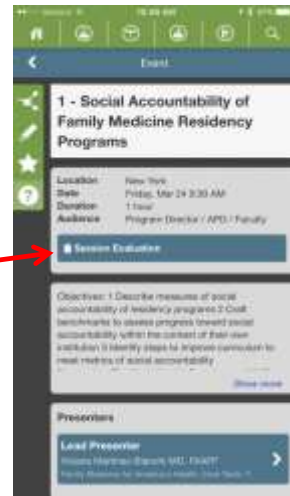


# Social Q & A

Please...

Complete the  
session evaluation.

Thank you.



29

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