



Elective: Point of Care Ultrasound (POCUS)
NGMC- Family Medicine Residency Program
Gainesville, Ga

PGY: 2-3

Description of Rotation:

This elective, spanning one month within the PGY2/3 year, serves to further elevate proficiency in Point-of-Care Ultrasound (POCUS), ultimately equipping residents with the necessary competence for POCUS application beyond their residency.

During this elective, residents will build upon their initial exposure to POCUS. Currently, PGY1 residents participate in a two-day POCUS course to introduce them to fundamental POCUS concepts. Additionally, throughout their PGY1 year, approximately four half-days during the Procedure month are dedicated to reinforcing the essential skills required for proficient POCUS performance.

All residents are expected to utilize POCUS in the hospital, emergency room, and clinic settings. Handheld POCUS devices are readily accessible to all residents throughout their training period. Furthermore, all scans conducted during this period will be uploaded to the NGMC website, contributing to the development of a comprehensive portfolio.

The ultrasound elective provides an opportunity for intensified focus on cultivating POCUS competency and assembling a portfolio showcasing these acquired skills.

Overall Goal of Rotation:

1. Develop skills to demonstrate proficiency in POCUS for medical ultrasound, including cardiac, lung, DVT, renal, bladder and aorta.
2. Develop a portfolio of scans to demonstrate proficiency in POCUS.
3. Demonstrate sufficient knowledge and skills in POCUS to complete a competency written test at 90% and simulation testing in trauma, shock and dyspnea.
4. Demonstrate sufficient skill to utilize US machines in various modes including B mode, M mode, Color Mode and Power mode.
5. With the use of simulation and live patient experience perform common procedures utilizing POCUS including paracentesis and thoracentesis.
6. The resident will acquire 50 scans on standardized and actual patients to enhance their ultrasound portfolio.

Location:	NGMC - Gainesville 743 Spring St NE Gainesville, GA 30501	NGPG – Family Medicine 1439 Jesse Jewell Pkwy, Suite 102 Gainesville, GA 30501	Lanier Park Sim Center 675 White Sulphur Rd Gainesville, GA 30501
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Preceptor: Paul Klas, MD

Sample PGY-3 Rotation Schedule

M	T	W	TH	F	Sat	Sun
Scanning	FMP Clinic	SIM Center teaching	Scanning	FMP Clinic	Eligible for IP coverage	OFF
SIM Center teaching	FMP Clinic	Didactic Half Day	Scanning	FMP Clinic	Eligible for IP coverage	OFF



Patient Care	
PGY level	Educational goals & objectives
2-3	In all patient care settings including inpatient, outpatient and emergency room, learners will demonstrate how patient care is improved with POCUS.
2-3	Residents will acquire the skills to utilize POCUS machines in their patient care practice.
2-3	Residents will demonstrate the skills to obtain ultrasound windows for all routine POCUS procedures including cardiac, lung, aorta, renal, bladder, and ocular.
2-3	Residents will demonstrate the ability to interpret ultrasound images obtained for patient care questions that arise answering specific questions arising in patient care.
2-3	Residents will demonstrate the ability to utilize interpretations of images to enhance patient care.
2-3	Residents will demonstrate the ability to utilize POCUS protocols for dyspnea, shock and trauma.

Medical Knowledge Objectives and Competencies	
PGY level	Educational Goals and Objectives
2-3	Understand basic knobology, physics and artifacts in ultrasound
2-3	Identify basic patterns in lung ultrasound, including normal, pneumothorax, consolidation, effusion.
2-3	Demonstrate knowledge of the three windows of cardiac scanning, and patterns of an acceptable image in each window.
2-3	Answer the three questions of chamber size, LV function and presence of effusion in each cardiac window.
2-3	Indications and limitations on DVT scanning and knowledge of how to do compression testing of the venous system.
2-3	Understand aorta anatomy and basic landmarks in the aorta allowing for measurement of aorta diameter.
2-3	Demonstrate knowledge of renal and bladder anatomy and knowledge of renal pathology including hydronephrosis and renal lesions.
2-3	Understand soft tissue scanning and the identification of foreign bodies and abscess vs. cellulitis
2-3	Knowledge of how the eFAST exam is used in the trauma patient.
2-3	Understand the various etiologies of the shock state and how POCUS can further clarify diagnosis and treatment
2-3	

Interpersonal and Communication Skills	
PGY level	Educational goals & objectives
2-3	Maintains therapeutic relationships, with attention to patient/family concerns and context, regardless of complexity (C-1-4)
2-3	Checks understanding of consult recommendations (received or provided). (C-2-3)
2-3	Coordinates recommendations from different members of the health care team to optimize patient care, resolving conflict when needed (C-2-4)
2-3	Communicates feedback and constructive criticism to supervising individuals (C-2-4)



Systems Based Practice Objectives and Competencies	
PGY level	Educational goals & objectives
2-3	Understand and utilize the multidisciplinary resources necessary to care optimally for patients. (SBP-1)
2-3	Use evidence-based, cost-conscious strategies in the care of ambulatory patients.
2-3	Understanding when to ask for help and advice from senior residents and attending physicians.
2-3	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, social workers, case managers, and providers of home health services (SBP-3)
2-3	Knowing when and how to refer patients to specialists, and how best to utilize the advice provided. (SBP-4)
2-3	Use evidence based and cost-effective diagnostic and treatment strategies.

Practice Based Learning and Improvement Objectives and Competencies	
PGY level	Educational goals & objectives
2-3	Identify and acknowledge gaps in personal knowledge/skills in the care of ambulatory patients.
2-3	Willingness and ability to incorporate faculty feedback into clinical/academic performance and participate in system change (PBLI-3);
2-3	Commitment to professional scholarship, including systematic, critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of principles of evidence-based medicine (PBLI-1)

Professionalism Objectives and Competencies	
PGY level	Educational goals & objectives
2-3	Behaves with humanistic qualities of respect, compassion, integrity, and honesty in all patient/staff interactions (PROF-1);
2-3	Acceptance of professional responsibility as the primary care physician for patients under his/her care
2-3	Willingness to acknowledge errors when committed and perform self-analysis to avoid future similar mistakes (PROF-2)
2-3	Appreciation of the social context of illness.
2-3	Understand ethical concepts of confidentiality, consent, autonomy, and justice.
2-3	Display professionalism through integrity, altruism and resolving conflict of interest.

Teaching Methods	
Clinical Teaching	Faculty Role Modeling
Case Based Teaching	Video/reading assignments

Procedures/Skills Taught (PC5)	
Chest	Soft tissue
Vascular (AAA screening, DVT)	MSK
Cardiac	Abdominal
FAST.....	Procedures (paracentesis, thoracentesis)
RUSH	Renal/Bladder



Supervision:

Resident will work one-on-one and be supervised by board certified family physicians. While the resident will interact with several health care providers, supervision of patient care, behavior and diagnostic interpretations will be provided by the preceptor. The faculty preceptor will directly observe patient care and the performance of all procedures.

EPA's

(EPA 2) Care for patients and families in multiple settings

(EPA 10) Perform common procedures in the outpatient or inpatient setting

(EPA 20) Coordinate care and evaluate specialty consultation as the condition of the patient requires

Residency Outcomes

Model *lifelong learning* and engage in *self-reflection*

Perform the *procedures* most frequently needed by patients in continuity and hospital practices

Resources: Required Reading or resources (list here how to access website for downloads, videos, etc)

Coreultrasound.com Sign on: cho2lax@gmail.com Password: Kafk5354

Point of Care Ultrasound, Nilam Soni, Elsevier Saunders.

Ultrasound for Primary Care, Paul Bornemann, Wolters Kluwer.