Cardiology **PGY: 3**

NGMC- Family Medicine Residency Program
Gainesville, Ga

Description of Rotation:

This is a four-week cardiology experience with the attending cardiologist at NGMC Medical Center (NGMC). Residents will round daily with the cardiologist at NGMC, conduct cardiology consultations in inpatient wards, and attend patients with the cardiology attending at their office. The resident will become competent and/or familiar with the appropriate evaluation and/or management of patients with cardiac disease processes and diagnostic studies.

Overall Goal of Cardiology Rotation:

Cardiovascular disease is a major cause of morbidity and mortality in our community; therefore, it is of utmost importance that Family physicians learn how to diagnose and treat common cardiovascular conditions. Along with medication management, it is imperative that the family physicians learn the behavioral and lifestyle factors that affect cardiovascular health.

Rotation Location:

NGMC 743 Spring Street NE, Gainesville Ga 30501

Rotation Preceptors: Nitya Chandra, MD Ugochukwu Egolum, MD

Sample PGY 3 Rotation Schedule Weeks

M	T	W	TH	F	Sat	Sun
Inpt cardiology	FM Clinic	Inpt cardiology	FM Clinic	Inpt cardiology	Inpatient Consult/ HF rounding	Off
Inpt cardiology	FM Clinic	Didactic Half Day	FM Clinic	Inpt cardiology	Inpatient Consult/ HF rounding	Off

Patient Care Objectives and Competencies	
PGY level	By the end of the rotation the resident will be able to:
3	Coordinates collaborative treatment plans for patients with undifferentiated illness (PC-4-4)
3	Performs independent risk and appropriateness assessment based on patient-centered priorities for procedures performed by consultants (PC-5-3)
3	Uses multidisciplinary resources to assist patients with undifferentiated illness to deliver healthcare more efficiently (PC-4-4)
3	Identifies barriers and alternatives to preventive health tests, with the goal of shared decision making (PC-3-3)
3	Develops collaborative goals of care and engages the patient in self-management of chronic conditions (PC-2-3)
3	Independently coordinates care for acutely ill patients with complex comorbidities (PC-1-4)
3	Performs independent risk and appropriateness assessment based on patient-centered priorities for procedures performed by consultants (PC-5-3)

Medical Knowledge Objectives and Competencies	
PGY level	By the end of the rotation the resident will be able to:
3	Demonstrates knowledge of complex pathophysiology and the comprehensive management of patients across the lifespan (MK-1-3)
3	Synthesizes complex diagnostic information accurately to reach high probability diagnoses. (MK-2-3)
3	Synthesizes information to reach high probability diagnoses with continuous re- appraisal to minimize clinical reasoning errors (MK-2-4)
3	Pursues knowledge of new and emerging diagnostic tests (MK-2-5)
3	Demonstrates comprehensive knowledge of behavioral strategies and resources to address patient's needs (MK-2-4)

Interpersonal and Communication Skills	
PGY level	By the end of the rotation the resident will be able to:
3	Maintains therapeutic relationships, with attention to patient/family concerns and context, regardless of complexity (C-1-4)
3	Checks understanding of consult recommendations (received or provided). (C-2-3)
3	Coordinates recommendations from different members of the health care team to optimize patient care, resolving conflict when needed (C-2-4)
3	Communicates feedback and constructive criticism to supervising individuals (C-2-4)
3	Demonstrates efficiency in documenting patient encounters and updating records. (C3-4)

Systems Based Practice Objectives and Competencies	
PGY level	By the end of the rotation the resident will be able to:
3	Participates in disclosure of patient safety events to patients and families (simulated or actual) (SBP-1-3)
3	Engages with patients in shared decision making, informed by each patient's payment models (SBP-3-3)
3	Mobilizes the multidisciplinary team to manage care for simultaneous patient visits (SBP-1-4)
3	Discusses how individual practice affects the broader system (e.g., length of stay, readmission rates, clinical efficiency) (SBP-3-3)
3	Role models and advocates for safe and effective transitions of care/hand-offs within and across health care delivery systems including outpatient settings (SBP-2-4)
3	Accesses advocacy tools and other resources needed to achieve (or prevent a deleterious) policy change (SBP-4-4)

Professionalism Objectives and Competencies	
PGY level	By the end of the rotation the resident will be able to:
3	Behaves with humanistic qualities of respect, compassion, integrity, and honesty in all patient/ staff interactions (PROF-1);
3	Acceptance of professional responsibility as the primary care physician for patients under his/her care

3	Willingness to acknowledge errors when committed and perform self-analysis to avoid future similar mistakes (PROF-2)
3	Appreciation of the social context of illness.
3	Understand ethical concepts of confidentiality, consent, autonomy and justice.
3	Display professionalism through integrity, altruism and resolving conflict of interest.

Practice Based Learning and Improvement Objectives and Competencies:	
PGY level	By the end of the rotation:
2	Articulates clinical questions and elicits patient preference and values in order to guide evidence based care. (PBLI-1)
2	Self-reflects and analyzes factors which contribute to gaps between expectations and actual Performance. (PBLI-2)
2	Designs and implements a learning plan, with prompting 9. (PBLI-2)
2	Willingness and ability to incorporate faculty feedback into clinical/academic performance and participate in system change. (PBLI-2)

Additional Osteopathic Objectives and Competencies:
By the end of the rotation/residency:
• Perform an accurate and complete structural and physical exam including somatic dysfunction (PC1)
• Be able to independently apply direct and indirect OMT to the clinical scenario that is presented (PC2)
• Integrate knowledge of anatomy, physiology, and pharmacology with osteopathic assessment models (biomechanical, neurology, behavioral, etc (MK1)
• Apply the Tenets of Osteopathic Medicine in the development of patient treatment plan and patient presentations that emphasizes: o 1. The body is a unit; the person is a unit of body, mind, and spirit. o 2. The body is capable of self-regulation, self-healing, and health maintenance. o 3. Structure and function are reciprocally interrelated. o 4. Rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function." (MK2)
• Document and apply appropriate billing and coding to their patient encounters according to level of complexity and modifiers for procedures such as OMT and injections. (SBP3)
• Utilize OMM continuity clinic to foster continuity of care and the development of meaningful patient relationships. (ISC1)

Teaching Methods	
Clinical Teaching	Faculty Role Modeling
Case Based Teaching	Supervised Clinical Management
Didactic	Guided Research

Procedures/ Skills Taught (PC5)	
Perform and Interpret ECG	CPR
Interpretation of chest radiograph	Exercise stress test monitoring and interpretation
Holter monitoring and interpretation	Echo interpretation

Supervision:
Resident will work one-on-one and be supervised by board certified Cardiologist and Fellow. 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 7) Diagnose and manage chronic medical conditions and multiple co-morbidities. (SBP 1, 2, 4)
(EPA 6) Evaluate and manage undifferentiated symptoms and complex conditions (MK 1, 2)
(EPA 13) Manage inpatient care, discharge planning, transitions of care (milestones PBL 1)

Residency Outcomes
Diagnose and manage acute illness and injury for people of all ages in the emergency room or hospital
Develop effective communication and constructive relationships with patients, clinical teams, and consultants

Resources: Required Reading	
Atrial Fibrillation	http://www.aafp.org/afp/2002/0715/p249.html
Hyperlipidemia	http://www.aafp.org/afp/1998/0501/p2192.html
Congestive Heart Failure	http://circ.ahajournals.org/content/circulationaha/119/14/1977.full.pdf
Palpitations/Arrhythmias	http://www.aafp.org/afp/2005/0215/p743.html
Hypertrophic Obstructive Cardiomyopathy	http://emedicine.medscape.com/article/890068-overview
EKG Interpretations	http://www.ecglibrary.com/ecghome.php
Valvular Heart Disease	http://www.aafp.org/afp/2001/0601/p2201.html
Acute Coronary Syndrome	http://www.aafp.org/afp/2005/0701/p119.html

Additional Osteopathic Curricular Elements	
Osteopathic Considerations in the Hypertension Patient	**SDOFM 2nd edition** • Chapter 26 – Hypertension • Read pages 287-297 • View 2 linked videos on diagnosing cervical and thoracic dysfunction. • View PowerPoint on Hypertension
G Osteopathic Considerations in the CHF Patient	**SDOFM 2nd edition** • Chapter 27 – Congestive Heart Failure • Read pages 300-307 • View 6 linked videos. o Cervical soft tissue and articulation o Scapulothoracic myofascial release o Lymphatic pump o Thoracic soft tissue technique o Rib raising o Thoracoabominal diaphragm

Arrythmias	**OMT Video Library** • View videos under *Arrythmias*
Hypertension	**OMT Video Library** • View videos under *Hypertension*
Chest Pain	**OMT Video Library** • View videos under *Chest pain*
Congestive Heart Failure	**OMT Video Library** • View videos under *CHF*
Osteopathic Foundations in Care of Cardiology Patients	**Foundations of Osteopathic Medicine fourth edition** • Read pgs. 167-174 (Tissue Respiration and Circulation) • Read pgs. 763-782 (Viscero somatic reflexes, SS reflexes, Jones Tenderpoints Trigger points and Chapman's points) • Read pgs. 1229-1242 (Considerations in Cardiovascular Medicine)

- **Seminal Articles**
  - Wieting, J. Michael, Christopher Beal, Gary L. Roth, Sherman Gorbis, Lori Dillard, Dennis Gilliland, and Jacob Rowan. *The Effect of Osteopathic Manipulative Treatment on Postoperative Medical and Functional Recovery of Coronary Artery Bypass Graft Patients.* **Journal of the American Osteopathic Association. 2013;113(5):384-393.**
  - Racca, Vittorio, Bruno Bordoni, Paolo Castiglioni, Maddalena Modica and Maurizio Ferratini. *Osteopathic Manipulative Treatment Improves Heart Surgery Outcomes: A Randomized Controlled Trial.* **The Annals of Thoracic Surgery 2017;104(1):145-152**