

CARDIOLOGY NON-INVASIVE NON-INTERVENTIONAL CORE:

Ability to admit, evaluate, diagnose, treat, and provide consultation to all patients of all ages presenting with diseases of the hearts, lungs, and blood vessels. Cardiologists also manage complex cardiac conditions. Physician may provide care to patients in the intensive care unit in conformance with Medical Staff Bylaws and Rules & Regulation. Privileges also include the ability to assess, stabilize, and determine the disposition of patients with emergent conditions consistent with medical staff policy regarding emergency and consultative call services.

Core Privileges include the following diagnostic and therapeutic procedures

Performance of history and physical exam

Ambulatory electrocardiology monitor interpretation

Cardioversion, electrical pacing: elective or emergent

EKG interpretation, including signal average EKG

Hemodynamic monitoring with balloon flotation devices

Placement and management of temporary pacemaker

Infusion and management of Gp IIb/IIIa, thrombolytic, and antithrombolytic agents

Insertion and management of central venous catheters, pulmonary artery catheters, and arterial lines

Noninvasive hemodynamic monitoring

Pericardiocentesis

Stress echocardiography (exercise and pharmacologic stress)

Transesophageal echocardiography

Tilt table testing

Transcutaneous external pacemaker placement

Transthoracic 2-D echocardiography, Doppler, and color flow

Thoracentesis

Mechanical Ventilation Level I - Uncomplicated ventilation patients with acute or chronic respiratory failure

Central line placement

Successful completion of an Accreditation Council for Graduate Medical Education (ACGME) or American Osteopathic Association (AOA) accredited fellowship in cardiovascular disease.

AND

Current certification or active participation in the examination process (with achievement of certification within 3 years) leading to subspecialty certification in cardiovascular disease by the American Board of Internal Medicine or the American Osteopathic Board of Internal Medicine with special qualifications in cardiology.

Those individuals who have met the board eligibility requirements may be approved for privileges with the contingency of obtaining board certification in compliance with the Moore Regional Hospital Medical Staff Bylaws.

With the above qualifications a cardiologist shall be permitted to perform all procedures for which they are qualified by training and experience. These privileges shall include: Core Privileges and Specialty Privileges.

FOCUS REVIEW

New Physician out of residency: Review 5 per category to include proctoring, chart review. (Review outcomes for 3 months)

Experienced Physician: Review 3 per category (Review outcomes for 3months)

ONGOING REVIEW: Applicable core measures, ALOS, Mortality Rate, Readmission Rate.

Cardiac CT and cardiac CT angiogram

Non Radiologist Physicians who will be assuming the responsibilities for Cardiac CT imaging should have completed an ACGME accredited training program in Cardiology AND meet one of the following sets of criteria:

Option #1 Available now, but mandatory for those who complete training after July 1, 2010 (documented via training dates AND attestation letter from the director of a fellowship training program or from individuals who are Level 2 or Level 3 qualified in hospital based or independent imaging centers or clinics that the following criteria have been met):

ACCF/AHA Level 2 training:

1. Eight weeks (week = 35 hours of "in lab" time) in CCT. AND
2. 150 contrast CCT examinations, at least 75 of which are coronary CTA studies, and for at least 50 of these cases, the candidate must be at the institution where the exam is performed, and be involved in the acquisition and interpretation of the case. AND
3. Evaluation of 50 non contrast studies. AND
4. Completion of 20 hours of lectures related to cardiac CT in particular.

Option #2 Available until July 1, 2010 (documented via training dates and certificates of training and letters of attestation from training directors/supervisors with either Level 2 or Level 3 training that the candidate has successfully achieved or surpassed each of the required training elements):

- A. Substantive activities in CCT over the previous three years AND
- B. Documented involvement in the performance* and interpretation of at least 150 studies, (at least half with contrast enhancement and 75 of which were of the coronary vessels), and for at least 50 of the 150 cases, the candidate must be at the institution where the exam is performed AND
- C. Twenty hours of coursework devoted to CCT [Documented equivalent supervised experience in a center actively performing Cardiac CT (Moore Regional Hospital) will suffice for the 20 hours of CME specific to Cardiac CT.]

*"performance" requires that the candidate be at the institution where the exam is performed.

Cardiovascular magnetic resonance

Non Radiologist Physicians:

Completion of an ACGME accredited training program in Cardiology
And Specific training in Cardiac MRI within an ACGME accredited
training program or completion of at least 200 hours of Category 1

And

Continuing Medical Education (CME) in MRI to include, but not
limited to: MRI physics, recognition of artifacts, safety,
instrumentation, and includes 40 hours of CME specific to Cardiac
MRI. Documented equivalent supervised experience in a center
actively performing Cardiac MRI (Moore Regional Hospital) will
suffice for the 40 hours of CME specific to Cardiac MRI. AND
Interpretation and reporting under the supervision of a qualified
physician** of at least 150 Cardiac MRI cases during the past 36
months. ** Means a physician privileged to interpret Cardiac MRIs' at
MRH OR the supervising physician from an ACGME accredited
radiology or cardiology training program.

Cardiac nuclear scan interpretation

A. Board Certified or Admissible Completion of a three year
Fellowship in Cardiology with Board eligibility, or completion of
formal Cardiology Fellowship before the year 1993, and additionally,
four months of formal training in interpretation of Cardiac SPECT
images with interpretation of at least 300 scans and angiographic
correlation of at least 75 cases to be documented. It also includes
interpretation of at least 100 radionuclide angiograms to be
documented. Additionally, current privileges for exercise testing
would be required.

B. If not A Current privileges for exercise testing, then a four month
training program in nuclear cardiology to be documented,
outside a formal three year Cardiology Fellowship. Interpretation of
at least 300 scans and angiographic correlation in 75 cases as a part
of this training should be documented. In addition, 25 scans will
need to be interpreted in conjunction with a current member of
the Staff who has privileges for interpretation of these scans.

Conscious Sedation

Option A (Must successfully complete all 3 criteria)

Basic Cardiac Life Support (BCLS) from the American Heart Association or Military Training Network

Basic EKG Interpretation CBL on NetLearning

Administration of Moderate and Deep Sedation CBL on NetLearning

Option B (Must successfully complete both criteria)

Advance Cardiac Life Support (ACLS) or Pediatric Advanced Life Support (PALS) from the American Heart Association or Military Training Network

Administration of Moderate and Deep Sedation CBL on NetLearning

Mechanism for Class Registration and Obtaining Self-Learning Packets:

Class registration (BCLS and ACLS) can be facilitated through Corporate Education Department (Ext. 715-1582). The provider must notify the Medical Staff Office when NetLearning CBL(s) have been completed.

Ventilator Mgmt., Level II - Mechanical ventilation in critically ill patients Includes management of:

1. **pressure control ventilation**
 2. **inverse ratio ventilation**
 3. **ventilation with permissive hypercapnia (respiratory acidosis with pH < 7.30)**
 4. **PEEP levels greater than 10 cm H₂O**
 5. **management of patients meeting any of the following criteria for 48 hours during hospitalization:**
 - a. **the application of high levels of PEEP (greater than 8 cm water)**
 - b. **patient requirements of high levels of FiO₂ (FiO₂ >= 60% or P/F ratio < 125)**
 6. **More than one failed extubation attempt**
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INITIAL QUALIFICATIONS

A. Board Certification or Board Eligibility by an accredited ACGME/AOA fellowship in pulmonary medicine or critical care medicine.

B. Individual physicians may be considered if sufficient expertise in mechanical ventilation and Critical Care Medicine can be documented. Those criteria will be determined by the Credentials Committee.

INVASIVE CARDIOLOGY; NON-INTERVENTIONAL CORE

Admit, evaluate, diagnose, treat, and provide consultation to adolescent and adult patients who present with acute or chronic heart disease and who may require invasive diagnostic procedures. May provide care to patients in the intensive care setting in conformance with unit policies. Assess, stabilize, and determine the disposition of patients with emergent conditions consistent with medical staff policy regarding emergency and consultative call services. The core privileges in this specialty include the below listed procedures and such other procedures that are extensions of the same techniques and skills.

Invasive cardiology

Venous angiography

Coronary arteriography from brachial, radial, or femoral

Diagnostic right- and left-heart cardiac catheterization

Insertion of intraortic balloon counter pulsation devices

Aortic Angiography

Selective renal angiography

Interpretation of coronary arteriograms, ventriculography, and hemodynamics

Use of vasoactive agents for epicardial and microvascular spasm

Initial privileges: At least 75 diagnostic right and/or left cardiac catheterizations, reflective of the scope of privilege requested, in the past 12 months; or an average of 75 cardiac catheterizations on a three (3) year cycle; or successful completion of an ACGME- or AOA-accredited cardiology fellowship that included training in invasive cardiology within the past 12 months. If applicant does not meet requirement, application should be referred to Cardiology Section for review on individual basis.

FOCUS REVIEW:

New Physician out of residency: Review 5 per category to include proctoring, chart review. (Review outcomes for 3 months)

Experienced Physician: Review 3 per category (Review outcomes for 3 months)

ONGOING REVIEW:

Applicable core measures, ALOS, H&P compliance, Verbal order compliance, Complication rate

Insertion and management of permanent pacemakers

A. Board certified in Cardiology with documentation of at least 25 initial procedures and 10 reoperations.

B. Board admissible in Cardiology with documentation from training director of at least 25 initial procedures and 10 re operations.

Balloon Pericardiotomy - Cardiothoracic Surgical consultation should be obtained prior to the performance of the procedure.

Board Certified or Eligible must have credentials to perform pericardiocentesis at Moore Regional Hospital and must have supervised performance of one balloon pericardiotomy.

Transcutaneous intracoronary diagnostic procedures during coronary angiography without coronary interventional privileges

I. Fractional Flow Reserve (FFR)

II. Intravascular Ultrasound (IVUS)

III. Optical Coherence Tomography (OCT)

See criteria for each item I. - III.

Fractional Flow Reserve (FFR) during coronary angiography

Current coronary angiography privileges AND current ABIM/AOBIM added qualification in Interventional Cardiology

OR

Current coronary angiography privileges AND >500 lifetime PTCI procedures as primary operator AND 12 FFR procedures in the past twelve (12) months

OR

Current coronary angiography privileges AND successful completion of ACGME/AOA accredited advanced residency program (Fellowship) in interventional cardiology AND 12 FFR procedures in the past twelve (12) months.

Intravascular Ultrasound (IVUS) during coronary angiography

Current coronary angiography privileges AND current ABIM/AOBIM added qualification in interventional cardiology
OR
Current coronary angiography privileges AND > 500 lifetime PTCI procedures as primary operator AND 12 IVUS procedures in the past twelve months
OR
Current coronary angiography privileges AND successful completion of an ACGME/AOA accredited advanced residency program (Fellowship) in interventional cardiology AND 12 IVUS procedures in the past twelve months.

Optical Coherence Tomography (OCT) during coronary angiography

Current coronary angiography privileges AND current ABIM/AOBIM added qualification in interventional cardiology
OR
Current coronary angiography privileges AND > 500 lifetime PTCI procedures as primary operator AND 12 OCT procedures in the past twelve months
OR
Current coronary angiography privileges AND successful completion of an ACGME/AOA accredited advanced residency program (Fellowship) in interventional cardiology AND 12 OCT procedures in the past twelve months.

INTERVENTIONAL CARDIOLOGY CORE PRIVILEGES include but are not limited to the following:

Diagnostic cardiovascular disease states amenable to catheter based interventions for inpatients and outpatients with chronic coronary artery disease, acute coronary syndromes, and valvular heart disease.

Endomyocardial biopsy

Femoral, brachial, or radial axillary cannulation for diagnostic angiography or percutaneous coronary intervention

Intracoronary foreign body retrieval

Intracoronary infusion of pharmacological agents, including thrombolytics

Intracoronary mechanical thrombectomy

Intracoronary stents

Intravascular ultrasound of coronaries (IVUS)

Optical Coherence Tomography (OCT)

Management of mechanical complications of percutaneous intervention

Performance of balloon angioplasty, stents, and other commonly used interventional devices

Use of intracoronary Doppler and flow wire

Abiomed Assist device

Cutting balloon angioplasty

Coronary flow measurement

Athrectomy techniques including Laser, Rotational, and orbital athrectomy

Directional cutting athrectomy

Alcohol septal ablation

To be eligible to apply for privileges in interventional cardiology, the applicant must be granted core privileges in cardiovascular medicine and meet the following criteria:

Successful completion of an ACGME or AOA accredited fellowship in interventional cardiology or equivalent practice experience if training occurred prior to 2003. AND

Current subspecialty certification or active participation in the examination process (with achievement of certification within 3 years leading to subspecialty certification in interventional cardiology by the American Board of Internal Medicine or the American Osteopathic Board of Internal Medicine. AND

Required current experience: At least 75 percutaneous coronary interventional procedures, reflective of the scope of privileges requested, in the past 12 months or successful completion of ACGME or AOA residency or clinical fellowship within the past 12 months.

FOCUS REVIEW:

New Physician out of residency: Review 5 per category to include proctoring, chart review. (Review outcomes for 3 months)

Experienced Physician: Review 3 per category (Review outcomes for 3 months)

ONGOING REVIEW:

Applicable core measures, ALOS, H&P compliance, Verbal order compliance, Complication rate

a. Completion of accredited interventional cardiovascular fellowship incorporating specific training in alcohol septal ablation in treatment of hypertrophic cardiomyopathy, with documentation of competence by fellowship training director Or

b. Meet credential criteria for coronary angioplasty procedures AND Documentation of 10 appropriately supervised alcohol septal ablation procedures

Continuously must have follow up review of each case in a combined section meeting of Cardiac Surgery and Cardiology

Percutaneous balloon valvuloplasty, including: mitral, aortic, and pulmonic percutaneous valvuloplasty.

a. Completion of accredited interventional cardiovascular fellowship incorporating specific training in valvuloplasty procedures, with documentation of competence by fellowship training director Or

b. Meet credentials criteria for coronary angioplasty procedures AND Documentation of 10 appropriately supervised valvuloplasty procedures

Continuously These cases must reviewed with Cardiac Surgery prior to procedure and in joint section cardiac surgery and cardiology after the procedure and at appropriate post procedure follow up intervals

Percutaneous atrial septal defect closure/patent foramen ovale closure

- a. Completion of accredited interventional cardiovascular fellowship incorporating specific training in septal defect closure, with documentation of competence by fellowship training director Or
 - b. Meet credential criteria for coronary angioplasty procedures AND Documentation of 10 appropriately supervised septal defect closures
- Continuously encourage review of percutaneous ASD closure prior to procedure with cardiac surgery
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Aortic coarctation angioplasty and/or coarctation stent

- a. Completion of accredited interventional cardiovascular fellowship incorporating specific training in aortic coarctation percutaneous intervention, with documentation of competence by fellowship training director Or
 - b. Meet credentials criteria for coronary angioplasty procedures AND Documentation of 10 appropriately supervised aortic coarctation percutaneous intervention procedures
- Continuously Cases must be reviewed with Cardiac Surgery prior to procedure and in joint section cardiac surgery and cardiology after the procedure and at appropriate post procedure follow up intervals
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Pulmonary artery angioplasty and/or pulmonary artery stent

- a. Completion of accredited interventional cardiovascular fellowship incorporating specific training in pulmonary artery percutaneous intervention, with documentation of competence by fellowship training director Or
 - b. Meet credentials criteria for coronary angioplasty procedures AND Documentation of 10 appropriately supervised pulmonary artery percutaneous intervention procedures
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Cardiac vascular occlusion procedures: including percutaneous closure of coronary artery fistula, pulmonary arteriovenous malformation patent ductus arteriosus.

- a. Completion of accredited interventional cardiovascular fellowship incorporating specific training in cardiac vascular occlusion procedures, with documentation of competence by fellowship training director Or
 - b. Meet credentials criteria for coronary angioplasty procedures AND Documentation of 10 appropriately supervised cardiac vascular occlusion procedures
- Continuously encourage review of PDA closure prior to the procedure with cardiac surgery.
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Peripheral percutaneous thrombolysis/thrombectomy

Must meet criteria for Interventional Cardiology Core privileges And
1. Fellowship Trained: Provide documentation of adequate training in the management of thrombotic/embolic extra-cardiac vascular disease by the training program director. This is expected to include any combination of 5 cases that involve either manual or mechanical thrombectomy, laser thrombectomy, or infusion of thrombolytic therapy. If less than 5 cases are performed, then a letter from the program director specifically addressing this issue will be required.

OR

2. Practice Experience trained: Provide documentation of adequate training in the management of thrombotic/embolic extra-cardiac vascular disease, to include any combination of 5 cases that involve either manual or mechanical thrombectomy, laser thrombectomy, or infusion of thrombolytic therapy.

Peripheral vascular interventions, including diagnostic and therapeutic angiography, angioplasty, and stenting of arterial and venous grafts and fistulas

- I. Candidate must be Board Certified or Board Eligible Interventional Cardiology with primary Boards as dictated by their specialty.
- II. Cardiology Applicant:
 1. All applicants completing fellowship in 1998 or later must:
 - a. Meet the American College of Cardiology's COCATS guidelines from 2002 for Level 3 (Vascular Medicine Specialist plus Vascular Intervention) criteria.
 - b. This must be verified in writing by the applicant's Program Director with a copy of the above noted guidelines included in the request from our institution specifically asking if the applicant's training meets the level 3 (Vascular Medicine Specialist plus Vascular Intervention) criteria as outlined in the document.
 - c. Has completed an additional fourth year of training in an ACGME or ABMS approved program with the specific components as outlined in the COCATS 2002 guidelines.
 - d. Must meet criteria outlined in section III of this document.
 2. All applicants who completed an invasive cardiology fellowship before 1998 must:
 - a. Be able to demonstrate that the cases supplied in section III of this document were performed in a supervised setting by a *qualified physician.
 - b. Submission of dictated procedure/operative notes for each case to demonstrate the performance of the above listed cases as the primary operator and participant.
 - c. Submission of a list describing the criteria for patient selection, outcomes and complications for all cases presented for review.
- III. Case experience/requirements (each applicant must meet the below criteria in addition to the specialty specific requirements outlined):
 1. Each applicant must have completed:
 - a. 100 diagnostic procedures
 - b. 50 interventions with 40 as the primary operator
 - c. 10 peripheral, non hemodialysis, non coronary, catheter directed thrombolytic/thrombectomy cases as the primary operator with a minimum of one thrombolytic case as a component of these.
 - d. In tabulating the applicant's experience, only one intervention and one diagnostic per patient per day will be allowed.
- IV. These criteria, once met, allow for performance of interventions in all peripheral arterial beds with the exclusion of (for which separate criteria exist):
 1. Aortic/Aorto iliac Stent Grafts
 2. Coronary catheterization and/or intervention
 3. Venous insufficiency
 4. Carotid Extracranial Interventions

Extracranial Carotid Stents

- a. Initial privileging requirements:
 1. Applicants must currently hold privileges to perform peripheral endovascular procedures at FirstHealth Moore Regional Hospital.
 2. For Radiology applicants:
 - i. 200 carotid arteriograms without prior vascular experience or 100 carotid arteriogram with prior vascular experience, and

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- ii. 25 non carotid stent procedures, and
 - iii. a "hands on" training course plus four carotid stent procedures OR 10 carotid stenting procedures.
3. For all other applicants:
- i. 30 carotid arteriograms, 15 as primary operator (with prior vascular experience, and
 - ii. 25 carotid stenting procedures, 13 as primary operator
4. Applicants must meet the additional specific training criteria for carotid artery interventions, as approved by the FDA and criteria that specifically pertains to the device to be used for the intervention.
- b. Re credentialing: All applicants must demonstrate at least 4 carotid stent procedures in a 24 month period.
 - c. Patients selected to receive carotid artery intervention must meet FDA and CMS approved criteria.
 - d. Applicants must meet the additional specific training criteria for carotid artery interventions, as approved by the FDA and criteria that specifically pertains to the device to be used for the intervention.

Intracardiac Ultrasound (ICE)

Board eligible or board certified in electrophysiology. OR Board eligible or board certified in interventional cardiology with structural heart procedure privileges
Must also have privileges for Peripheral Vascular Interventions above under interventional special privileges.

ELECTROPHYSIOLOGY (EP) CARDIOLOGY

Core privileges in cardiac electrophysiology include the ability to admit, evaluate, treat, and provide consultation to acute and chronically ill patients of all ages, except as specifically excluded from practice, with various heart rhythm disorders, including sinus node dysfunction, atrioventricular and intraventricular block, and supraventricular and ventricular tachyarrhythmia; clinical conditions of unexplained syncope; aborted sudden cardiac death; palpitations; Wolff-Parkinson-White syndrome and long QT syndrome; care of patients in the cardiac care unit, ER, or other intensive care settings before and after an electrophysiologic procedure; and care of patients with temporary and permanent pacemakers, postoperative arrhythmias, and implantable cardioverter defibrillators (ICD),
Core privileges in EP include but are not limited to the following:

Insertion and management of ICDs

Insertion & management of permanent pacemakers, including single/dual chamber and biventricular

Interpretation of activation sequence mapping recordings, invasive intracardiac electrophysiologic studies, including endocardial electrogram recording and imaging studies

Interpretation of results of noninvasive testing relevant to arrhythmia diagnoses and treatment

Performance of therapeutic catheter ablation procedures.

Intra-cardiac echo (ICE)

Pulmonary vein ablation

Prior to training in clinical cardiac electrophysiology, physicians must achieve competence in general cardiology and in diagnostic catheterization. A minimum of one year of accredited specialized training in electrophysiology to acquire the cognitive and technical skills required to become expert in CCEP, in addition to time spent during general cardiology fellowship training learning to diagnose and manage arrhythmias.

Lead Extraction

1. Currently have pacemaker and/or ICD implantation privileges.
2. Completed pacemaker/ICD lead extraction training during a Cardiology or Electrophysiology Fellowship, with a letter from the Program Director indicating competency. Alternatively, undergo training post fellowship, followed by having the first three cases proctored.
3. For the additional use of the Laser Lead Extraction system, undergo the manufacturer required training and submit a letter of completion.

Laser assisted lead extraction (such as eximer)

1. Applicant must have current privileges at Moore Regional Hospital in peripheral arterial endovascular interventions or coronary interventions.
 2. Applicant must have attended and completed a recognized and specifically designed didactic course for Excimer Laser Catheter System.
 3. A minimum of three (3) cases will be proctored by a privileged/accredited person who will attest to competency before the candidate may apply for full credentials. It is understood that this may require an outside expert to provide proctoring initially.
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Transseptal puncture

Completion of accredited cardiovascular fellowship incorporating specific training in transseptal puncture, completion of at least ten during fellowship, and letter from program director. OR
Completion of ten proctored transseptal punctures (10)

Endomyocardial Biopsy

A. Board certified in Cardiology with cardiac catheterization privileges/training, with documentation of 12 supervised procedures.
B. Board admissible in Cardiology with cardiac catheterization privileges/training, with documentation from training director of 12 supervised procedures.

Signature of Applicant

Date

DEPARTMENT CHAIRMAN APPROVAL

NOTE: Any request indicated as "Not Approved / Approved with Restrictions" must be explained here, including listing any restrictions:

I have reviewed this application and recommend clinical privileges as indicated above.

Signature of department chair/designee

Date