ATRIUM HEALTH
CARDIOLOGY/CARDIOVASCULAR MEDICINE
DELINEATION OF PRIVILEGES
SPECIALTY OF INTERNAL MEDICINE

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Print Name

	YES		NO	I have participated in direct patient care in the hospital setting within the past two (2) years.

If the answer is No, please do not complete this form. Contact the Medical Staff Office at (704) 355-2147 for additional instructions regarding the required proctoring process.

If you would like to request Moderate Sedation (Conscious Sedation), please see the Moderate Sedation Delineation of Privileges form.

☐ **Initial appointment** ☐ **Reappointment** ☐ **Updated DOP** ☐ **Request for Clinical Privileges**

To be eligible for core privileges in Cardiology/Cardiovascular Medicine, the applicant must meet the following qualifications:

☐ If the applicant is not currently subspecialty certified in Cardiology/Cardiovascular Medicine by the America Board of Medical Specialties (ABMS) or the American Osteopathic Association (AOA) with a Certification of Special Qualifications (CSQ) in Cardiology, the applicant must:

1. Provide documentation of successful completion of an ACGME or AOA accredited Cardiology/Cardiovascular Medicine Fellowship Training Program in Cardiology or Cardiovascular Medicine, within the past five (5) years; **AND**
2. Verification from the fellowship program director that the Applicant successful completed the program. Experience must include evidence of current clinical competence during the past two (2) years. The Applicant has the burden of producing information deemed adequate by the Hospital for a proper evaluation of current competence, and other qualifications and for resolving any doubts; **AND**
3. Provide documentation of current Advanced Cardiac Life Support (ACLS) course completion card.

☐ If the applicant is currently subspecialty certified in Cardiology or Cardiovascular Medicine by the American Board of Medical Specialties (ABMS) or by the American Osteopathic Association, the applicant must:

1. Documentation of active cardiology practice in an accredited hospital or healthcare facility for at least two (2) years; **AND**
2. Provide documentation of current Advanced Cardiac Life Support (ACLS) course completion card.

☐ Carolinas HealthCare System Kings Mountain applicants may be eligible for Core Cardiology privileges by meeting the following qualifications:

1. Documentation of active cardiology practice in an accredited hospital or healthcare facility for at least two (2) years.

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Print Name

NOTE 1: Physicians must apply for "CORE" privileges in order to be eligible for clinical privileges in the specialty of Cardiology/Cardiovascular Medicine at any facility within Atrium Health.

NOTE 2: "CORE" privileges cannot be amended or altered in any way.

NOTE 3: Please note that the exercise of certain privileges enumerated herein is necessarily limited by the operational, and resource constraints of the facility. All procedures must be performed within a clinical setting with the capabilities and organizational structure required to provide appropriate support.

*** SPECIAL PRIVILEGES WITH QUALIFICATIONS AND/OR SPECIFIC CRITERIA - PROVIDE THE NUMBER OF PROCEDURES PERFORMED WITHIN THE PAST TWO YEARS AND FACILITY WHERE THE PROCEDURES WERE PERFORMED.**

Please check appropriate blocks when applying for privileges:

CMC	Pineville	University	CR	Lincoln	NorthEast	Union	Stanly	Anson	Cleveland	Kings Mountain		**CARDIOLOGY CORE PRIVILEGES**
			N/A								CCAR-1	Privileges to evaluate, diagnose, treat and provide consultation to patients of all ages presenting with diseases of the heart, lungs, and blood vessels and manage complex cardiac conditions such as heart attacks, and life-threatening, abnormal heartbeat rhythms.

NOTE: Privileges include but are not limited to: advanced cardiac life support (ACLS), cardioversion, insertion and management of central venous and pulmonary artery catheters, use of thrombolytic agents, pericardiocentesis, echocardiography interpretation including stress echocardiography and transesophageal echocardiography, holter scanning, exercise stress testing, drug-induced stress testing and interpretation of radionuclide cardiac studies, temporary transvenous pacemaker placement, intra-aortic balloon pump placement, electrical cardioversion and diagnostic cardiac catheterization and endomyocardial biopsy, implantable intravascular pressure sensor/device insertion, provide basic care and management of patients with implantation of artificial heart and mechanical devices to support or replace the heart partially or totally.

These core privileges do not include any of the special procedures listed below.

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM		**CORE CARDIOLOGY/CARDIOVASCULAR MEDICINE PRIVILEGES – REHABILITATION HOSPITAL SETTING ONLY**
N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	CCAR-9	Privileges include evaluation and management, as well as procedures approved for performance within the acute rehabilitation setting, in conjunction with the comprehensive rehabilitation treatment plan.

Print Name

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM		**Ventricular Assist Device (VAD)** Must apply for and maintain Cardiology Core Privileges (CCAR-1)
			N/A								CCAR-1(a)	Provide advanced care and management of complex patients with implantation of artificial heart and mechanical devices to support or replace the heart partially or totally.

CCAR-1(a) Ventricular Assist Device (VAD)

Ventricular Assist Device (VAD) is a mechanical circulatory device that is used to partially or completely replace the function of a failing heart. The mechanical pump is used to support heart function and blood flow in patients who have weakened hearts. A VAD can help support the heart during or after surgery until the heart recovers, while waiting for a heart transplant, and for patients who are not eligible for a heart transplant, can be a long-term solution to help the heart work better.

Credentials Required:

1. Apply for and meet the necessary criteria to be granted privileges for Cardiology Core Privileges (CCAR-1); **AND**
2. Documentation of current subspecialty certification in Advanced Heart Failure and Transplant Cardiology from the American Board of Medical Specialties; **AND**
3. Provide documentation from the Cardiology or Cardiovascular Medicine fellowship program director that the Applicant completed training to include patient selection, management and care of patients who are being considered for or who require, device-based heart failure management (e.g. mechanical circulatory support devices); **AND**
4. Provide documentation of the management of at least six (6) Ventricular Assist Devices (VAD) in the past two (2) years;

OR

1. Apply for and meet the necessary criteria to be granted privileges for Cardiology Core Privileges (CCAR-1); **AND**
2. Documentation of current subspecialty certification in Advance Heart Failure and Transplant Cardiology from the American Board of Medical Specialties; **AND**
3. Submit documentation of successful completion of six (6) cases within the past two (2) years which were performed under the guidance of an approved proctor who is trained in the advanced care and management Ventricular Assist Device (VAD).

Maintenance Criteria for Continued Privileges - Ventricular Assist Device (VAD) (CCAR-1(a)):

The Physician must provide documentation that they have participated in the care of these patients over a two (2) year period to be eligible to reapply for Ventricular Assist Device (VAD) privileges. Acceptable results of ongoing professional practice evaluation and outcomes will be considered to reapply for VAD. The physician must also provide documentation of current subspecialty certification in Advanced Heart Failure and Transplant Cardiology from the American Board of Medical Specialties. This will be reviewed at the time of reappointment. Physicians who would like to continue to hold any special privileges but are unable to document the minimal number will be requested to voluntarily withdraw their request for such privileges and to complete the necessary proctoring forms.

EXCEPTION: patients with a Ventricular Assist Device who are receiving Hospice and Palliative Care are not required to be managed by a Cardiologist.

Print Name

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM		**CARDIOVASCULAR DISEASE OUTPATIENT CORE PRIVILEGES**
N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	CCAR-1(b)	Privileges include but are not limited to providing medical services involving the care of outpatients in the Heart Success Clinic, and the hospital clinics that are on the hospital license, when their participation is requested by the respective Chief or designee of the Department. These privileges shall - include management of clinical problems which fall within the purview of Cardiovascular Disease.

Maintenance Criteria for Continued Privileges (CCAR-1(b))

For any privileges that are granted during initial credentialing the Appointee must provide the following at the time of reappointment:

1. The Physician must provide documentation from the Practitioners outpatient practice setting to include a minimum of three (3) cases managed in the most recent two (2) years; **AND**
2. Submission of a Peer Review Evaluation Form completed by one of the Applicant's peers that refers patients to Appointee.

This will be reviewed at the time of reappointment. Physicians who would like to continue to hold Cardiovascular Disease Outpatient Core Privileges but are unable to document the minimal number will be requested to voluntarily withdraw their request for such privileges and to complete the necessary proctoring forms.

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Print Name

The following Interventional Cardiology Core Privileges may be requested only by applicants who meet the entry level criteria; **AND**

Interventional Cardiology ACGME or AOA Board certified or eligible; **AND**

Completion of an additional one (1) year accredited program in Interventional Cardiology within the past two (2) years with verification of competence by the Director of the training program; **OR**

Applicants who completed their training program greater than two (2) years ago and are currently practicing Interventional Cardiology may submit a minimum number of one-hundred and fifty (150) interventional cases for the past two (2) years; **OR**

Alternatively, for applicants that do not meet a threshold of one-hundred and fifty (150) interventional cases for the past two (2) years; applicants may submit the total number of cases in a lifetime career for review and consideration of a proctoring process by a high volume interventionalist with privileges. This will be at the discretion of the medical director of the cardiovascular diagnostic laboratory in conjunction with the chief/section chief of the department of internal medicine (applicants will need to contact the medical staff office for instructions for permission to be proctored request forms).

Please check appropriate blocks when applying for privileges:

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM		**INTERVENTIONAL CARDIOLOGY CORE PRIVILEGES**
			N/A	N/A			N/A	N/A	N/A	N/A	CCAR-2 *	Privileges to evaluate and treat disease in the coronary arteries, cardiac valves or cardiac chambers to include, but not limited to, coronary angioplasty, cardiac valvuloplasty, ASD closures, catheter directed thrombolysis of the pulmonary arteries, septal ablation or any cardiac interventional procedure as outlined/defined under American College of Cardiology (ACC), American Heart Association (AHA), or the Society for Cardiovascular Angiography and Interventions (SCAI) protocols or guidelines that are FDA approved devices. Supplemental certification may be required for low volume procedures as dictated by FDA or other regulatory agencies or at the discretion of the Medical Director of the Cardiovascular Diagnostic Laboratory. Devices that are under Investigational Review Board (IRB) supervision (FDA-IRB) devices under this category may only be performed by CAR-2 privileged physicians who meet the criteria as specified by their respective IRB protocol.

Minimum Number Required	Number Performed Within The Past 2 Years	Location
150		

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Print Name

Maintenance Criteria for Continued Privileges:

Cases: The Physician must submit a minimum of one hundred and fifty (150) representative samples of interventional cardiology procedures over the past two (2) years based on acceptable results of ongoing professional practice evaluation and outcomes to reapply for interventional cardiology privileges. This will be reviewed at the time of reappointment. Physicians who do not meet the one hundred and fifty (150) representative samples of interventional cardiology procedures over a two (2) year period consideration of reappointment will be at the discretion of the Medical Director of the Cardiovascular Diagnostic Laboratory in conjunction with the Chief/Section Chief of the Specialty.

CME: To maintain a cognitive knowledge base, it is recommended that individual operators attend at least twenty (20) hours of interventional cardiology continuing medical education (CME) every two (2) years. This could include catheterization conference and PCI meetings in addition to expanding the use of simulation cases for procedure use and competence.

OTHER CRITERIA: The continued performance of these procedures will be assessed for clinical competence as these procedures require considerable experience and judgment. The type(s) of information that may be included in this review are; quality benchmarks, mortality related to the procedure, stroke, MI related to the procedure, Ischemia requiring emergency CABG either as a result of the procedure failure or a procedure complication, vascular access site complications, contrast agent nephropathy, excessive bleeding, requiring treatment and other data such as coronary perforation and tamponade.

SPECIAL PRIVILEGES (SEE QUALIFICATIONS AND/OR SPECIFIC CRITERIA) – PROVIDE THE NUMBER OF PROCEDURES PERFORMED WITHIN THE PAST TWO YEARS AND FACILITY WHERE THE PROCEDURES WERE PERFORMED.

Please check appropriate blocks when applying for privileges:

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM		SPECIAL PRIVILEGES Must apply for and maintain Interventional Cardiology Core Privileges (CCAR-2)	Number Performed Within The Past 2 Years	Location
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CCAR-2(a) *	Trans-Catheter Aortic Valve Replacement (TAVR)		

CCAR-2(a) TRANS-CATHETER AORTIC VALVE REPLACEMENT (TAVR)

Transcatheter valve replacement is similar from an operator viewpoint to the currently performed balloon aortic valvuloplasty. In that procedure, a balloon is delivered via a transarterial approach and used to dilate the stenotic aortic valve. With TAVR, similar techniques are used to deliver and implant the stent-based prosthetic valve in the site of the native aortic valve. The cognitive base and catheter skills of interventional cardiology are therefore required. However, the procedure differs from balloon aortic valvuloplasty in several important respects. These include the following:

1. TAVR is often performed via a femoral artery cut down, a procedure necessarily performed by a cardiovascular surgeon.
2. Given the significant incidence of emergent life-threatening complications such as valve embolization (unique to TAVR) and/or aortic rupture, a credentialed cardiovascular surgeon is required member of the implant team. These complications, if they occur may require immediate surgical intervention. Thus a credentialed cardiovascular surgeon, who holds the TAVR privilege, must be scrubbed in at the table ready for emergency surgical intervention during the critical portions of the procedure.

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Print Name

CCAR-2(a) TRANS-CATHETER AORTIC VALVE REPLACEMENT (TAVR) – continued

SKILLS AND TRAINING: Transcatheter valve replacement is similar from an operator viewpoint to the currently performed balloon aortic valvuloplasty. In that procedure, a balloon is delivered via a transarterial approach and used to dilate the stenotic aortic valve. With TAVR, similar techniques are used to deliver and implant the stent-based prosthetic valve in the site of the native aortic valve. The cognitive base and catheter skills of interventional cardiology are therefore required.

Additional training specific to the valve and delivery system is required. Because the sole device available for the procedure in the United States was only approved by the FDA on November 2, 2011, few physicians in this country have substantial experience with the device. Industry-sponsored training courses are therefore available and mandated as a path to initial U.S. use of this technology.

	NO PRIOR EXPERIENCE/TRAINING IN TAVR DEVICE USE

1. Provide documentation of certification from the American Board of Internal Medicine or by the American Osteopathic Association (AOA); **AND**

2. Provide documentation of successful completion of a fellowship training program which is ACGME or AOA accredited in Interventional Cardiology, within the past five (5) years; **OR**

1. Provide documentation of subspecialty certification in Interventional Cardiology by the American Board of Internal Medicine or the American Osteopathic Association;

AND

2. Apply for and meet the necessary criteria to be granted privileges for Interventional Cardiology Core Privileges (CCAR-2); **AND**

3. Provide documentation of successful completion of an industry sponsored training program; **AND**

4. Submit documentation of successful completion of four (4) cases which were performed under the guidance of an approved proctor who is trained in the TAVR device procedure.

OR

	CURRENTLY EXPERIENCED AND PERFORMING TAVR DEVICE PROCEDURES

1. Provide documentation of subspecialty certification in Interventional Cardiology by the American Board of Internal Medicine or the American Osteopathic Association; **AND**

2. Apply for and meet the necessary criteria to granted privileges for Interventional Cardiology Core Privileges (CCAR-2); **AND**

3. Submit documentation of successful completion of thirty (30) TAVR procedures, which were performed within the past two (2) years, with acceptable outcomes. (Please note: these cases will be reviewed by the Cardiovascular Diagnostic Laboratory Committee)

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Print Name

CCAR-2(a) TRANS-CATHETER AORTIC VALVE REPLACEMENT (TAVR) – continued

PLEASE NOTE: If the proctoring is to occur at Carolinas Medical Center, contact the Medical Staff Office to obtain the POLICY AND THE PERMISSION TO BE PROCTORED REQUEST FORM. This process must be completed before you may apply for the privilege. It is noted that the proctoring for the TAVR device will occur at Carolinas Medical Center. The definition of a proctor is listed below.

* For the TAVR procedure a proctor is defined as a thoracic and cardiovascular surgeon and/or interventional cardiologist who has met the above outlined qualifications for credentialing and has had practice experience in successful use of the TAVR device. The proctor must submit a letter from their institution where they currently hold the privileges, attesting to experience and satisfactory outcomes using the TAVR device. Additionally, the proctor shall be approved by the Chief of the Department. PLEASE NOTE: The TAVR procedure is performed as a team with one Interventional Cardiologist and one Thoracic and Cardiovascular Surgeon; therefore, both the Interventional Cardiologist and the Thoracic and Cardiovascular Surgeon would receive credit for being proctored.

Criteria for Maintenance of Privileges (CCAR-3(a)):

The Physician must submit a representative sample of a minimum of twelve (12) cases over the past two (2) years based on acceptable results of ongoing professional practice evaluation and outcomes to reapply for Trans-catheter Aortic Valve Replacement (TAVR). This will be reviewed at the time of reappointment. Physicians who would like to continue to hold any special privileges but are unable to document the minimal number will be requested to voluntarily withdraw their request for such privileges and to complete the necessary proctoring forms.

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Print Name

The following Clinical Cardiac Electrophysiology Core Privileges may be requested only by applicants who meet the entry level criteria and who have completed an accredited program in clinical cardiac electrophysiology; **AND**

Completion of an additional one (1) year accredited program in Clinical Cardiac Electrophysiology Cardiology or subspecialty certification in Clinical Cardiac Electrophysiology Cardiology with verification of competence in the requested procedure by the Directory of the training program; **OR**

Applicants who completed their training program greater than two (2) years ago and are currently practicing Clinical Cardiac Electrophysiology may submit a minimum number of three hundred (300) Electrophysiology cases for the past two (2) years, **OR**

Alternatively, for applicants that do not meet a threshold of three hundred (300) Electrophysiology cases for the past two (2) years; applicants may submit the total number of cases in a lifetime career for review and consideration of a proctoring process by a high volume Cardiac Electrophysiologist with privileges. This will be at the discretion of the medical director of the cardiovascular diagnostic laboratory in conjunction with the chief/section chief of the department of internal medicine (applicants will need to contact the medical staff office for instructions for permission to be proctored request forms).

Please check appropriate blocks when applying for privileges:

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM		**CLINICAL CARDIAC ELECTROPHYSIOLOGY CORE PRIVILEGES**
		N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	CCAR-3 *	Privileges to evaluate, treat and provide consultation to acute and chronically ill patients of all ages with a variety of heart rhythm disorders. Care of patients before and after an electrophysiologic procedure; with permanent pacemakers; Cardiac Resynchronization Therapy (CRT); with postoperative arrhythmias and care of patients with ICDs.

Minimum Number Required	Number Performed Within The Past 2 Years	Location
150		

NOTE: Privileges include sinus node dysfunction, atrioventricular (AV) and intraventricular block, and supraventricular and ventricular tachyarrhythmias; clinical conditions of unexplained syncope, aborted sudden cardiac death, palpitations, Wolff-Parkinson-White (WPW) syndrome, and long QT syndrome.

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Print Name

Maintenance Criteria for Continued Privileges (CCAR-3):

Cases: The Physician must submit a minimum of one hundred and fifty (150) representative samples of clinical cardiac electrophysiology procedures over the past two (2) years based on acceptable results of ongoing professional practice evaluation and outcomes to reapply for clinical cardiac electrophysiology privileges. This will be reviewed at the time of reappointment. Physicians who do not meet the one hundred and fifty (150) representative samples of electrophysiology cardiology procedures over a two (2) year period consideration of reappointment will be at the discretion of the Medical Director of the Cardiovascular Diagnostic Laboratory in conjunction with the Chief/Section Chief of the Specialty.

CME: To maintain a cognitive knowledge base, it is recommended that individual operators attend at least twenty (20) hours of clinical cardiac electrophysiology continuing medical education (CME) every two (2) years.

OTHER CRITERIA:

The continued performance of these procedures will be assessed for clinical competence as these procedures require considerable experience and judgment. The type(s) of information that may be included in this review are; quality benchmarks, mortality related to the procedure, and periprocedural complications including but not limited to: vascular site complications, cardiac perforation, cardiac device infection, and procedure related pneumothorax.

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Print Name

- **SPECIAL PRIVILEGES (SEE QUALIFICATIONS AND/OR SPECIFIC CRITERIA) – PROVIDE THE NUMBER OF PROCEDURES PERFORMED WITHIN THE PAST TWO YEARS AND FACILITY WHERE THE PROCEDURES WERE PERFORMED.**

Please check appropriate blocks when applying for privileges:

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM		SPECIAL PRIVILEGES Must apply for and maintain Cardiology or Interventional Cardiology Core Privileges (CCAR-1 or CCAR-2)	Number Performed Within The Past 2 Years	Location
											CCAR-4 *	Cardiac Pacing and Arrhythmia Management Please note that Cardiac Pacing and Arrhythmia Management (CCAR-4) privileges are included in Clinical Cardiac Electrophysiology Core Privileges (CCAR-3). CCAR-4 privileges are reserved for physicians who can meet the approved initial and maintenance criteria but have not completed a fellowship in Clinical Cardiac Electrophysiology.		
		N/A	N/A	N/A			N/A	N/A		N/A	CCAR-4(a)	Permanent Pacemakers *		
		N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	CCAR-4(b)	Implantable Cardioverter-defibrillators (ICD) *		
		N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	CCAR-4(c)	Cardiac Resynchronization Therapy (CRT) *		

CCAR-4 CARDIAC PACING AND ARRHYTHMIA MANAGEMENT

Cardiac pacing and arrhythmia management involve implanting electronic devices such as pacemakers or implantable cardioverter-defibrillators (ICD). These devices are designed to detect arrhythmias (i.e., abnormal heart rhythms), when the heart beats too slowly (i.e., bradycardia) or too rapidly (i.e., tachycardia), and deliver a shock to restore normal rhythm.

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Print Name

CCAR-4(a) PERMANENT PACEMAKERS

The Applicant should provide documentation of the following:

1. Documentation of current certification by the American Board of Medical Specialties or the American Osteopathic Board of Cardiology; **OR**

1. Documentation of successful completion, within the past five (5) years, of an ACGME or AOA accredited fellowship training program in Cardiovascular Diseases; **AND**

2. Provide documentation of successful completion of the International Board of Heart Rhythm Examiners (IBHRE) exam certification; **AND**

3. Provide documentation of at least fifty (50) primary implantations of transvenous pacemakers and twenty (20) pacemaker system revisions or replacements. (At least half of the implantations should involve dual-chamber pacemakers). The Applicant must also have participated in the follow-up of at least one-hundred (100) pacemaker patient visits and acquire proficiency in the advanced pacemaker electrocardiography, interrogation, and programming of complex pacemakers.

CCAR-4(b) IMPLANTABLE CARDIOVERTER-DEFIBRILLATORS (ICD)

The Applicant should provide documentation of the following:

1. Apply for and meet the criteria requirements for permanent pacemakers (CCAR-4(a)); **AND**

2. Provide documentation of successful completion of the International Board of Heart Rhythm Examiners (IBHRE) exam certification; **AND**

3. Provide documentation of at least twenty-five (25) ICDs with defibrillation threshold testing with at least ten (10) of these being revisions/replacements.

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Print Name

CCAR-4(c) CARDIAC RESYNCHRONIZATION THERAPY (CRT)

The Applicant should provide documentation of the following:

1. Apply for and meet the criteria requirements for implantable cardioverter-defibrillators (ICD), (CCAR-4(b)); **AND**

2. Provide documentation of successful completion of the International Board of Heart Rhythm Examiners (IBHRE) exam certification; **AND**

3. Provide documentation of at least twenty (20) CRT device implantations.

Maintenance Criteria for Continued Privileges:
Cases: The Physician must submit a representative sample of a minimum of twenty-four (24) Cardiac Pacing and Arrhythmia Management procedures and ten (10) revision(s)/replacement(s) procedures over the past two (2) years based on acceptable results of ongoing professional practice evaluation and outcomes to reapply for Cardiac Pacing and Arrhythmia Management (CCAR-4(A) – CCAR-4(C)) privileges. This will be reviewed at the time of reappointment. Please note that at least ten (10) of the procedures submitted, to meet the maintenance criteria, must be in the top level of the privileges requested, i.e., CCAR-4 (c) would require at least 10 of the 24 maintenance procedures to be a CRT-D device, CCAR-4 (b) would require at least 10 of the 24 maintenance procedures to be an ICD device, etc. Physicians who would like to continue to hold any special privileges but are unable to document the minimal number will be requested to voluntarily withdraw their request for such privileges and to complete the necessary proctoring forms.

OTHER CRITERIA:
The continued performance of these procedures will be assessed for clinical competence as these procedures require considerable experience and judgment. The type(s) of information that may be included in this review are; quality benchmarks, mortality related to the procedure, and periprocedural complications including but not limited to: vascular site complications, cardiac perforation, cardiac device infection, and procedure related pneumothorax.

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Print Name

CMC	Pine.	Univ.	CR	Lin.	NE	Union	Stanly	Anson	Cle.	KM	CARDIAC MAGNETIC RESONANCE (MRI) PRIVILEGES FOR CARDIOLOGISTS		Minimum Number Required	Number Performed Within The Past 2 Years	Location
			N/A	N/A			N/A	N/A	N/A	N/A	CCAR-7	Cardiac CT and Coronary CT Angiography Imaging for Cardiologist	150		
			N/A	N/A			N/A	N/A	N/A	N/A	CCAR-8	Cardiac Magnetic Resonance Imaging (MRI) for Cardiologist	50		

CCAR-7 CARDIAC CT AND CORONARY CT ANGIOGRAPHY IMAGING

SHORT DEFINITION: Computed tomography (CT) is a proven and important imaging modality for the detection and characterization of cardiovascular disease (1). This technology has undergone a dramatic evolution since its introduction into clinical practice in 1973. Multiple-detector units, with advanced spatial and temporal resolution, can provide detailed anatomic and functional information regarding the heart, great vessels, and coronary circulation. Such information can greatly facilitate the diagnosis and management of a wide range on cardiovascular conditions and, in some circumstances, obviate the need for invasive procedures. Clinical applications of cardiac CT (CCT) encompass non-contrast (coronary calcium evaluation) and contrast (CT angiography) studies (2).

Medical specialists trained in the distinct disciplines of cardiovascular medicine, radiology, and nuclear medicine are all involved in the imagining of cardiovascular diseases, albeit from differing perspectives. These perspectives, however, also share many common features, emphasizing the importance of a broadly based, multi-disciplinary approach for management (2). Cardiovascular specialists, by virtue of their knowledge of cardiovascular disease processes, and expertise with other cardiovascular imaging/therapeutic modalities (i.e., invasive angiography, radionuclide imaging techniques, and cardiovascular ultrasound) have been integral in the technological developments and clinical applications of cardiac CT.

The joint bodies of the American College of Cardiology, American Heart Association, and American College of Physicians have recently issued guidelines for training and maintenance of clinical competence in cardiac CT (2,3). Specific training pathways have been recommended for those currently in fellowship training programs, as well as for those who have already obtained board certification and are active practicing clinicians. The American College of Radiology has issued a separate guideline statement relevant to the training and certification of qualified Radiologists (4). The respective societies' guidelines are not intended to exclude qualified practitioners from "the other side of the fence", but rather assure that there own specialists adhere to the highest standards. Programs that can successfully integrate the complementary expertise of both specialties will certainly enhance patient care and outcomes.

CCAR-7 CARDIAC CT AND CORONARY CT ANGIOGRAPHY IMAGING - Continued

SKILLS AND TRAINING NEEDED - The applicant must meet the following:

1. Provide documentation of successful completion of an ACGME accredited Cardiovascular Disease or AOA accredited Cardiology Training Program within the past five (5) years; **OR**

1. Applicant must submit documentation of certification by the American Board of Internal Medicine or American Osteopathic Board of Internal Medicine; **AND**

2. Involvement in reading one hundred and fifty (150) contrast cardiac CT studies with a minimum of fifty (50) studies in which the applicant participated in the acquisition of the scan.; **AND**

3. Submit documentation of fifteen (15) hours of category I CME in cardiac CT within the past twenty-four (24) months; **AND**

4. Expectation that within two (2) years of initial credentialing, the reader become certified by the Certification Board of Cardiovascular CT (CBCCT).

Maintenance Criteria for Continued Privileges (CCAR-7):
The Physician must submit a minimum of one hundred (100) contrast Computed Tomography Angiography (CTA) examinations and a minimum of fifteen hours Category 1 CME devoted to Cardiac CT over the past two (2) years based on acceptable results of ongoing professional practice evaluation and outcomes to reapply for Cardiac Ct and Coronary Ct Angiography Imaging. This will be reviewed at the time of reappointment. Physicians who would like to continue to hold any special privileges but are unable to document the minimal number will be requested to voluntarily withdraw their request for such privileges and to complete the necessary proctoring forms.

CAR-8 CARDIAC MAGNETIC RESONANCE IMAGING (MRI)

DEFINITION: MRI uses large magnets and radio-frequency waves to produce high-quality still and moving pictures of the body's internal structures. No X-ray exposure is involved. The scan monitors energy changes in tissues reacting to magnetic forces. A computer analyzes these changes and creates a composite image of the tissues. The images can be shown in two or three spatial dimensions in either static or dynamic (cine) mode.

This combination of unique capabilities has made MRI a commonly used imaging procedure for evaluating cardiac problems. Cardiac MRI is well established in clinical practice for the diagnosis and management of a wide spectrum of cardiovascular disease, including: ischemic heart disease, myocardial disease, right ventricular abnormalities, pericardial disease, cardiac tumors, valvular disease, thoracic aortic disease, pulmonary artery disease and congenital heart disease before and after surgical repair. The latter category is especially well suited to MRI as images of the cardiovascular systems can be obtained from many angles.

There are many advantages to Cardiac MRI when compared to other noninvasive imaging modalities such as ultrasound and CT. Since MRI does not use ionizing radiation, it can be used in children and pregnant women. MRI contrast media does not have as high a risk of allergic reaction or contrast media induced nephropathy as iodinated contrast media. Unlike echocardiography, MRI can produce images of cardiovascular structures without interference from adjacent bone or air, a limitation of echocardiography. MRI is also less operator dependant than echocardiography. Specific MRI sequences (SSFP) can be used to assess global and regional ventricular contractile function, including the more difficult to assess right ventricle. Velocity encoded techniques permit measurement of blood flow. MRI does not have the weakness of geometric assumptions (as does angiography) in assessing ventricular volumes.

Limitations of MRI include occasional claustrophobia during the exam; longer examination time compared to CT; physical isolation of the patient and incompatibility of MRI with various medical devices including cardiac pacemakers and cochlear implants. The presence of intraocular or intracranial metal is also a contraindication for MRI.

CCAR-8 CARDIAC MAGNETIC RESONANCE IMAGING (MRI) - Continued

SKILLS AND TRAINING NEEDED: The physician involved in the supervision and interpretation of Cardiac MRI examinations shall have the responsibility for all aspects of the study including reviewing all indications for the examination, specifying the pulse sequences to be performed, specifying the use and dosage of contrast agents, interpreting images, generating written reports, and assuring the quality of both the images and interpretations. Physicians performing pharmacologic stress testing as part of the Cardiac MRI imaging must be knowledgeable about the administration, risks and contraindications of pharmacologic agents used for stress testing. They must be capable of monitoring the patient throughout the procedure.

CREDENTIALS:
A physician supervising and/or interpreting MRI examinations will be required to meet the following minimum criteria:

1. Certification in cardiology by the American Board of Internal Medicine or American Board of Pediatrics with completion of Level II or higher.

    a. Board certification or eligibility, valid medical license and completion of a three (3) month (cumulative) specialty residency * or fellowship in Cardiac MRI; **AND**

    b. One Hundred and fifty (150) Cardiac MRI examinations; ** fifty (50) in which the candidate is physically present and involved in the acquisition and supervised interpretation of the case; **AND**

    c. Completion of thirty (30) hours of courses related to MRI in general and/or Cardiac MRI in particular.

CRITERIA FOR MAINTENANCE OF PRIVILEGES:

- The Physician must submit a minimum of fifty (50) cardiac MRI examinations over the past two (2) years based on acceptable results of ongoing professional practice evaluation and outcomes to reapply for Cardiac Magnetic Resonance Imaging (MRI). This will be reviewed at the time of reappointment. Physicians who would like to continue to hold any special privileges but are unable to document the minimal number will be requested to voluntarily withdraw their request for such privileges and to complete the necessary proctoring forms.

CONTINUING MEDICAL EDUCATIONAL REQUIREMENTS:

- Cardiologists must have earned at least thirty (30) hours of coursework in Cardiac MRI in the prior thirty-six (36) month period in accordance with Level II requirements.

* This represents cumulative time spent interpreting, performing and learning Cardiac MRI and need not be a consecutive block of time. At least fifty (50)% of the time should represent supervised laboratory experience with a Level II or Level III mentor. This can include time spent at educational courses on the topic. Training time is defined as a minimum of thirty-five (35) hours per week.

* * The caseload recommendations may include studies from an established teaching file, previous Cardiac MRI cases and electronic/on-line CME.

PRIVILEGES REQUESTED BY:

I have requested only those privileges for which by education, training, current experience, and demonstrated performance I am qualified to perform, and that I wish to exercise at Atrium Health and;

I understand that:

a) In exercising any clinical privileges granted, I am constrained by hospital and medical staff policies and rules applicable generally and any applicable to the particular situation.
b) Any restriction on the clinical privileges granted to me is waived in an emergency situation and in such a situation my actions are governed by the applicable section of the medical staff bylaws or related documents.

I attest that I am not currently a user of illegal drugs or do not currently abuse the use of legal drugs.

I attest that I do not have a physical or mental condition which could affect my motor skills or ability to exercise the clinical privileges requested or that I require an accommodation in order to exercise the privileges requested safely and competently.

____, M.D.   ____________________
Signature   Date

____
Print Name
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CASE LOG

Physician's Name: ______________________________ **Date: ___________________**

	DATE	MEDICAL RECORD NUMBER	PROCEDURE TYPE	Name of procedure (as listed on DOP, e.g. CCAR-1(a))
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