

Elective Cardiovascular Medicine Rotation Information and Instructional Objectives

Instructor of Record for Cardiovascular Medicine Rotation:

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Cardiovascular Medicine Clinical Rotation Topics

Cardiovascular System

Cardiomyopathy: Dilated, Hypertrophic, Restrictive

Conduction disorders/dysrhythmias: Atrial fibrillation/flutter, Atrioventricular block, Bundle branch block, Paroxysmal supraventricular tachycardia, Premature beats, Sick sinus syndrome, Sinus arrhythmia, Torsades de pointes, Ventricular fibrillation, Ventricular tachycardia

Congenital heart disease: Atrial septal defect, Coarctation of aorta, Patent ductus arteriosus, Tetralogy of Fallot, Ventricular septal defect

Coronary artery disease: Acute myocardial infarction, Non-ST-segment elevation, ST-segment elevation, Angina pectoris, Prinzmetal variant, Stable, Unstable

Heart failure

Hypertension: Essential hypertension, Hypertensive emergencies, Secondary hypertension

Hypotension: Cardiogenic shock, Orthostatic hypotension, Vasovagal hypotension

Lipid disorders: Hypercholesterolemia, Hypertriglyceridemia

Traumatic, infectious, and inflammatory heart conditions: Acute and subacute bacterial endocarditis, Acute pericarditis, Cardiac tamponade, Pericardial effusion

Valvular disorders: Aortic, Mitral, Pulmonary, Tricuspid

Vascular disease: Aortic aneurysm/dissection, Arterial embolism/thrombosis, Arteriovenous malformation, Giant cell arteritis, Peripheral artery disease, Phlebitis/thrombophlebitis,

Varicose veins, Venous insufficiency, Venous thrombosis

Hematologic System

Coagulation disorder: Clotting factor disorders

Pulmonary System

Pulmonary circulation: Cor pulmonale, Pulmonary embolism, Pulmonary hypertension

Cardiovascular Medicine Rotation Learning Outcomes

Upon completion of the cardiovascular medicine clinical rotation,

1. Students will demonstrate medical knowledge of the pathophysiology, etiology, epidemiology, patient presentation, differential diagnosis, diagnostic work-up, patient management, health promotion, and disease prevention for common conditions (listed in Elective Cardiovascular Medicine Clinical Rotation Topics above) encountered in cardiovascular medicine for patients seeking medical care for the following age populations: adults and elderly.
2. Students will elicit a detailed and accurate patient history, perform an appropriate physical examination, appropriately use and interpret diagnostic testing and laboratory studies, and formulate differential diagnoses and assessment plans for symptoms/conditions (listed in Elective Cardiovascular Medicine Clinical Rotation Topics above) commonly encountered in patients seeking acute and/or chronic care.
3. Students will demonstrate technical skills common to cardiovascular medicine, including the ability to interpret (a) EKG, (b) echocardiogram report, and (c) cardiac stress test report.
4. Students will obtain and document information clearly and appropriately for the following patient encounters: (a) acute problem-focused encounters and (b) chronic disease follow-up encounters.
5. Students will listen empathetically and effectively, communicate clearly, and utilize shared decision-making for patients seeking care in cardiovascular medicine.
6. Students will facilitate difficult health care conversations in cardiovascular medicine.
7. Students will demonstrate compassion, integrity, respect, patient responsiveness, and accountability while providing care to patients in a cardiovascular medicine setting.
8. Students will (a) seek, implement, and accept feedback, (b) reflect on performance and develop plans for self-improvement, and (c) locate, appraise, and integrate evidence-based studies related to cardiovascular medicine.
9. Students will (a) promote a safe environment for patients seeking care in a cardiovascular medicine setting, (b) demonstrate knowledge of quality improvement methodologies and metrics, (c) recognize the unique role of PAs and other health professions in cardiovascular medicine, (d) work effectively with other health professionals to provide collaborative, patient-centered in cardiovascular medicine, (e) work effectively in an outpatient and/or inpatient health delivery settings, and (f) incorporate considerations of cost awareness and funding into patients seeking care in a cardiovascular medicine setting.

Cardiovascular Medicine Instructional Objectives

Upon completion of the Cardiovascular Medicine clinical rotation,

1. Students will demonstrate medical knowledge of the pathophysiology, etiology, epidemiology, patient presentation, differential diagnosis, diagnostic work-up, patient management, health promotion, and disease prevention for common conditions (listed in Elective Cardiovascular Medicine Clinical Rotation Topics above) encountered in cardiovascular medicine for patients seeking medical care for the following age populations: adults and elderly.
 - **Cardiovascular medicine instructional objective:** Recommend appropriate screening tests and immunizations based on current standards. (MK-PLO3)

- **Cardiovascular medicine instructional objective:** Contrast the risks and benefits of appropriate treatment plans for your patients. (MK PLO-3)
 - **Cardiovascular medicine instructional objective:** Contrast the risks and benefits of procedures that are needed on your patient. (MK-PLO3)
 - **Cardiovascular medicine instructional objective:** Observe ordering and prescribing medications for acute and chronic conditions (MK PLO-3)
2. Students will elicit a detailed and accurate patient history, perform an appropriate physical examination, appropriately use and interpret diagnostic testing and laboratory studies, and formulate differential diagnoses and assessment plans for symptoms/conditions (listed in Elective Cardiovascular Medicine Clinical Rotation Topics above) commonly encountered in patients seeking acute and/or chronic care.
- **Cardiovascular medicine instructional objective:** Demonstrate an appropriate problem-focused history and physical exam on a patient seeking cardiovascular care. (PC-PLO2)
 - **Cardiovascular medicine instructional objective:** Demonstrate an appropriate expanded history and physical exam on a patient seeking cardiovascular care. (PC-PLO2)
 - **Cardiovascular medicine instructional objective:** Choose appropriate diagnostic tests to identify an abnormality. (PC-PLO3)
 - **Cardiovascular medicine instructional objective:** Evaluate diagnostic tests. (PC-PLO3)
 - **Cardiovascular medicine instructional objective:** Formulate a differential diagnosis based on patient history, physical examination, and diagnostic data. (PC-PLO4)
 - **Cardiovascular medicine instructional objective:** Construct an appropriate treatment plan based on history, physical exam, and diagnostic data. (PC-PLO4)
 - **Cardiovascular medicine instructional objective:** Interpret diagnostic studies related to the patient's medical condition. (PC-PLO4)
 - **Cardiovascular medicine instructional objective:** Appraise patient health with screening health exams that follow appropriate medical guidelines for adult and elderly patients. (PC-PLO4)
3. Students will demonstrate technical skills common to cardiovascular medicine, including the ability to interpret (a) EKG, (b) echocardiogram report, and (c) cardiac stress test report.
4. Students will obtain and document information clearly and appropriately for the following patient encounters: (a) acute problem-focused encounters and (b) chronic disease follow-up encounters.
5. Students will listen empathetically and effectively, communicate clearly, and utilize shared decision-making for patients seeking care in cardiovascular medicine.
- **Cardiovascular medicine instructional objective:** Describe health promotion and disease prevention to your patients. (ICS-PLO3)

- **Cardiovascular medicine instructional objective:** Adapt communication style and information context to the individual patient interaction. (ICS-PLO3)
 - **Cardiovascular medicine instructional objective:** Support patient education using written patient education handouts. (ICS PLO-3)
 - **Cardiovascular medicine instructional objective:** Identify communication barriers with different patient populations. (ICS PLO-3)
 - **Cardiovascular medicine instructional objective:** Compose an oral case presentation and present it to the preceptor. (ICS-PLO3)
 - **Cardiovascular medicine instructional objective:** Explain possible risks and benefits of diagnostic studies and treatment plans to your patient as approved by the supervising provider. (ICS-PLO3)
 - **Cardiovascular medicine instructional objective:** Select written patient education handouts to address a health promotion issue using the most up-to-date, evidence-based medical data. (ICS PLO-3)
6. Students will facilitate difficult health care conversations in cardiovascular medicine.
7. Students will demonstrate compassion, integrity, respect, patient responsiveness, and accountability while providing care to patients in a cardiovascular medicine setting.
- **Cardiovascular medicine instructional objective:** Practice professionally in a working situation with other healthcare team members, including appropriate dress, punctual attendance, and professional attitude. (P-PLO1)
 - **Cardiovascular medicine instructional objective:** Show sensitivity to the emotional, social, developmental, and ethnic background of patients and their families on their service. (P-PLO1)
 - **Cardiovascular medicine instructional objective:** Apply professional attitude in such areas as attendance, dress code, and performance in the medical setting. (P-PLO1)
 - **Cardiovascular medicine instructional objective:** Demonstrate sensitivity and responsiveness to patients' culture, gender, age, and disabilities. (P-PLO1)
 - **Cardiovascular medicine instructional objective:** Demonstrate motivation and desire to learn. (P-PLO3)
 - **Cardiovascular medicine instructional objective:** Evaluate community resources to implement patient care. (P-PLO-3)
 - **Cardiovascular medicine instructional objective:** Demonstrate knowledge of the legal and regulatory requirements of the role of a physician assistant. (P-PLO4)
8. Students will (a) seek, implement, and accept feedback, (b) reflect on performance and develop plans for self-improvement, and (c) locate, appraise, and integrate evidence-based studies related to cardiovascular medicine.
- **Cardiovascular medicine instructional objective:** Demonstrate an openness to receive constructive criticism. (PBLPI-PLO1)
 - **Cardiovascular medicine instructional objective:** Recognize limitations and locate assistance from supervising preceptors and appropriate reference material. (PBLPI-PLO1)

- **Cardiovascular medicine instructional objective:** Develop the ability to learn from practice. (PBLPI-PLO2)
 - **Cardiovascular medicine instructional objective:** Recognize personal limitations and where to access help personally and professionally. (PBLPI-PL2)
 - **Cardiovascular medicine instructional objective:** Recognize the importance of lifelong learning in the medical field. (PBLPI-PLO3)
 - **Cardiovascular medicine instructional objective:** Assess medical evidence and communicate it to patients and colleagues. (PBLPI-PL3)
 - **Cardiovascular medicine instructional objective:** Apply information technology to access online medical information and continue personal education. (PBLPI-PL3))
 - **Cardiovascular medicine instructional objective:** Use medical information technology in decision-making, patient care, and patient education. (PBLPI-PL3)
9. Students will (a) promote a safe environment for patients seeking care in a cardiovascular medicine setting, (b) demonstrate knowledge of quality improvement methodologies and metrics, (c) recognize the unique role of PAs and other health professions in cardiovascular medicine, (d) work effectively with other health professionals to provide collaborative, patient-centered care in cardiovascular medicine, (e) work effectively in an outpatient and/or inpatient health delivery settings, and (f) incorporate considerations of cost awareness and funding into patients seeking care in a cardiovascular medicine setting.
- **Cardiovascular medicine instructional objective:** Operate under the rules of HIPAA to preserve patient confidentiality. (SBP-PLO1)
 - **Cardiovascular medicine instructional objective:** Practice according to policy and procedures set forth by the health care facility. (SBP-PLO1)
 - **Cardiovascular medicine instructional objective:** Identify the obstacles to obtaining medical care for those with financial difficulties. (SBP-PLO6)
 - **Cardiovascular medicine instructional objective:** Assess the impact poverty or location may have on your treatment plan. (SBP-PLO6) (Preceptor Evaluation)
 - **Cardiovascular medicine instructional objective:** Evaluate cost-effective health care and resources that do not compromise the quality of patient care. (SBP-PLO6)
 - **Cardiovascular medicine instructional objective:** Identify the funding sources and payment systems that provide coverage for the patient. (SBP-PLO7)
 - **Cardiovascular medicine instructional objective:** Choose the appropriate code for billing the responsible payment service under the direct supervision of the preceptor. (SBP-PLO7)

Elective Cardiovascular Medicine Rotation Curriculum Integration Table

Elective Cardiovascular Medicine Rotation Learning Outcome	Assessment Method (Benchmark Requirements)	PAS Program Goal	PAS Program Learning Outcome (ARC-PA)/Student Learning Outcomes (GVSU)
<p>Students will demonstrate medical knowledge of the pathophysiology, etiology, epidemiology, patient presentation, differential diagnosis, diagnostic work-up, patient management, health promotion, and disease prevention for common conditions (listed in Elective Cardiovascular Clinical Rotation Topics above) encountered in cardiovascular medicine for patients seeking medical care for the following age populations: adults and elderly.</p>	<p>Preceptor Evaluation (80% average score on Medical Knowledge competency section)</p>	<p>Medical Knowledge and Competence in Patient Care</p>	<p>MK #2 MK #3</p>
<p>Students will elicit a detailed and accurate patient history, perform an appropriate physical examination, appropriately use and interpret diagnostic testing and laboratory studies, and formulate differential diagnoses and assessment plans for symptoms/conditions (listed in Elective Cardiovascular Clinical Rotation Topics above) commonly encountered in patients seeking acute and/or chronic care.</p>	<p>Preceptor Evaluation (80% average score on Patient competency section)</p>	<p>Medical Knowledge and Competence in Patient Care</p>	<p>PC #1 PC #2 PC #3 PC #4</p>

Students will demonstrate technical skills common to cardiovascular medicine including ability to interpret (a) EKG, (b) echocardiogram report, and (c) cardiac stress test report.	Preceptor Evaluation (80% average score on Patient competency section)	Medical Knowledge and Competence in Patient Care	PC #5
Students will obtain and document information clearly and appropriately for the following types of patient encounters: (a) acute problem-focused encounters, and (b) chronic disease follow-up encounters.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Medical Knowledge and Patient Care	ICS#2
Students will listen empathetically and effectively, communicate clearly, and utilize shared decision-making for patients seeking care in cardiovascular medicine.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Medical Knowledge and Patient Care	ICS #1
		Collaborative Practice	ICS #3 ICS #5
Students will facilitate difficult health care conversations in cardiovascular medicine.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Collaborative Practice	ICS #4
Students will demonstrate compassion, integrity, respect, patient responsiveness, and accountability while providing care to patients in a cardiovascular medicine setting.	Preceptor Evaluation (80% average score on Professionalism competency section)	Professionalism	P #1 P #2 P #3
Students will (a) seek, implement, and accept feedback, (b) reflect on performance and develop plans for self-improvement, and (c) locate, appraise, and integrate evidence-based studies related to cardiovascular medicine.	Preceptor Evaluation (80% average score on Practice-Based Learning and Proficiency Improvement competency section)	Lifelong Learning	PBLPI #1 PBLP #2 PBLP #3

<p>Students will (a) promote a safe environment for patients seeking care in a cardiovascular medicine setting, (b) demonstrate knowledge of quality improvement methodologies and metrics, (c) recognize the unique role of PAs and other health professions in internal medicine, (d) work effectively with other health professionals to provide collaborative, patient-centered in cardiovascular medicine, (e) work effectively in an outpatient and/or inpatient health delivery setting, (f) incorporate considerations of cost awareness and funding into patients seeking care in a cardiovascular medicine setting, and (g) describe basic health payment systems and practice models for cardiovascular medicine.</p>	<p>Preceptor Evaluation (80% average score on Systems-Based Practice competency section)</p>	<p>Medical Knowledge and Patient Care</p>	<p>SBP #1 SBP #6</p>
		<p>Lifelong Learning</p>	<p>SBP #2</p>
		<p>Collaborative Practice</p>	<p>SBP #3 SBP #4 SBP #5 SBP #7</p>

Cardiovascular Medicine Preceptor Evaluation of the Student

1. What is your group and/or site name (i.e., West Michigan Cardiology)
2. Medical Knowledge: This section evaluates the student’s ability to demonstrate medical knowledge, clinical reasoning, and problem-solving ability of sufficient breadth and depth to practice medicine as an entry-level physician assistant

	60% (Failing)	70% (D+/ C-)	80% (C+/ B)	90% (B+/ A-)	100% (A)
Student demonstrates medical knowledge in pathophysiology, etiology, and epidemiology for patients seeking medical care for common conditions encountered in cardiovascular medicine in the following age populations (MK#2, 3):					
Adults					
Elderly					
Student demonstrates medical knowledge of patient presentations for common conditions encountered in cardiovascular medicine for the following age populations (MK#2,3):					
Adults					
Elderly					
Student demonstrates medical knowledge of differential diagnosis and diagnostic work-up for patients seeking medical care for common conditions encountered in cardiovascular medicine in the following age populations (MK#2,3)					
Adults					
Elderly					
Student demonstrates medical knowledge of patient management strategies for patients seeking medical care for common conditions encountered in cardiovascular medicine in the following age populations (MK#2,3):					
Adults					
Elderly					
Student demonstrates medical knowledge of health promotion and disease prevention for patients seeking medical care for common conditions encountered in cardiovascular medicine in the following age populations (MK#2, 3)					
Adults					
Elderly					
Additional Comments:					

3. Patient Care: This section evaluates the student’s ability to provide person-centered care that includes patient- and setting-specific assessment, evaluation, management, and health promotion.

	60% (Failing)	70% (D+/ C-)	80% (C+/ B)	90% (B+/ A-)	100% (A)	N/A
Elicit a detailed and accurate history and perform an appropriate physical examination for the following populations encountered in cardiovascular medicine (PC#1):						
Adults						
Elderly						

Elicit a detailed and accurate patient history for patients encountered in cardiovascular medicine seeking (PC#1):						
Acute care						
Chronic care						
Perform appropriate physical examination for patients encountered in cardiovascular medicine seeking (PC#2):						
Acute care						
Chronic care						
Student demonstrates knowledge of the appropriate use and interpretation of diagnostic testing and laboratory studies commonly used for patients seeking (PC#3):						
Acute care						
Chronic care						
Student organizes information from the interview, diagnostic testing, and physical examination to formulate differential diagnoses for patients seeking (PC#4):						
Acute care						
Chronic care						
Student organizes information from the interview, diagnostic testing, and physical examination to formulate assessment plans for symptoms/conditions commonly encountered in patients seeking (PC#4):						
Acute care						
Chronic care						
Demonstrate basic technical skills common to cardiovascular medicine including ability to interpret: (PC#5):						
EKG						
Echocardiogram report						
Cardiac stress test report						
Additional Comments:						

4. Interpersonal and Communication Skills: This section evaluates the student's ability to demonstrate verbal and non-verbal communication skills needed to have respectful, compassionate, and effective conversations with patients, patients' families, and health professionals to exchange information and make medical decisions.

	60% (Failing)	70% (D+ / C-)	80% (C+ / B)	90% (B+ / A-)	100% (A)
Listen empathetically and effectively to patients seeking care in cardiovascular medicine (ICS#1)					
Obtain and document information clearly and accurately at an appropriate level the following types of patient encounters (ICS#2):					
Acute problem-focused encounters					

Chronic disease follow-up encounters					
Wellness and preventive encounters					
Communicate information clearly to patients, families, colleagues, and teams as appropriate across a broad range of socioeconomic and cultural backgrounds. (ICS#3)					
Facilitate difficult health care conversations in cardiovascular medicine (ICS#4):					
Utilize shared-decision making to promote patient-centered communication by eliciting and incorporating patient preferences (ICS#5)					
Additional Comments:					

5. Professionalism: This section evaluates the student's ability to demonstrate commitment to carrying out professional responsibilities and adhering to ethical principles and practices.

	60% (Failing)	70% (D+/ C-)	80% (C+/ B)	90% (B+/ A-)	100% (A)
Demonstrate compassion, integrity, and respect for patients seeking care in a cardiovascular medicine setting (P#1)					
Demonstrate responsiveness to patient needs that supersede self-interest while providing care in a cardiovascular medicine setting (P#2)					
Show accountability to patients, society, and the profession while providing care in a cardiovascular medicine setting (P#3)					
Additional Comments:					

6. Practice-Based Learning and Proficiency Improvement: This section evaluates the student's ability to acquire, appraise, and apply evidence-based medicine to patient care and accurately assess and improve clinical performance based on constant self-evaluation and lifelong learning.

	60% (Failing)	70% (D+/ C-)	80% (C+/ B)	90% (B+/ A-)	100% (A)

Seek, implement, and accept feedback (PBLPI#1)					
Reflect on performance to identify strengths and deficiencies in one's knowledge and expertise and develop a plan for self-improvement (PBLPI#2)					
Locate, appraise, and integrate evidence-based studies related to cardiovascular medicine (PBLPI#3)					
Additional Comments:					

7. **Systems-Based Practice:** This section evaluates the student's ability to engage with other healthcare professionals in a manner that optimizes patient care within the context of the larger healthcare system.

	60% (Failing)	70% (D+/ C-)	80% (C+/ B)	90% (B+/ A-)	100% (A)
Promote a safe environment for patients seeking care in a cardiovascular medicine setting (SBP#1)					
Recognize the unique roles of PAs and those of other healthcare professions in cardiovascular medicine (SBP#3)					
Work effectively with other health professionals to provide collaborative, patient-centered in cardiovascular medicine (SBP#4)					
Work effectively in an outpatient and/or inpatient health delivery setting (SBP#5)					
Incorporate considerations of cost awareness and funding sources into patients seeking care in a cardiovascular medicine setting (SBP#6)					
Additional Comments:					

8. Did the student have any absences during the rotation?
- Yes
 - No
 - If yes, please indicate dates and reason for absence:
9. Please write a short note commenting on this student's particular strengths.
10. Please write a short note commenting on this student's particular areas for improvement.
11. Was this evaluation discussed with the student?
- Yes
 - No

c. Additional comments:
12. Preceptor Signature: