

# ACC.21 Pathway Learning Objectives

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## Electrophysiology

As a result of participating in the Electrophysiology Pathway sessions, learners will have an improved or reinforced ability to:

1. Apply recent evidence and current guideline recommendations to the management of all types of cardiac arrhythmias
2. Integrate and evaluate emerging evidence and options for prevention, detection, risk assessment, rhythm and rate management, and stroke prevention into the care of patients with atrial fibrillation
3. Identify different patient populations that may benefit from contemporary device-based therapies
4. Compare and contrast pharmacologic management and treatment of arrhythmias, including outcomes and risk of adverse events due to medications used to treat arrhythmias
5. Recognize and interpret common ECG patterns and integrate this knowledge into clinical decision-making by the practitioner for a cardiovascular disease patient
6. Provide up-to-date management of arrhythmias in special populations, including in women, athletes, inherited arrhythmia conditions, and cardiomyopathy/heart failure
7. Debate topical and global health trends and advancing technology utilized by both clinicians and patients, and implication on diagnosis and management of arrhythmias
8. Evaluate emerging therapies for arrhythmia care, and delineate future implications for clinical research

## Heart Failure and Cardiomyopathy

As a result of participating in the Heart Failure and Cardiomyopathies Pathway sessions, learners will have an improved or reinforced ability to:

1. Provide current best care for heart failure patients using evidence-based therapies and consensus guidelines for diagnosis, evaluation, and management across the entire spectrum of patients with heart failure and cardiomyopathy
2. Offer practical guidance on diet, exercise, and heart failure management that is appropriately tailored to diverse patient populations across various stages and types of heart failure
3. Recognize the interaction between various comorbidities, including diabetes, and heart failure, and best practices in the multidisciplinary approach
4. Expand knowledge about the management of patients with specific etiologies of cardiomyopathy such as infiltrative and arrhythmogenic cardiomyopathies
5. Analyze the evidence on current and newer pharmacotherapies, monitoring and therapeutic devices, towards prioritization and best practices in heart failure management
6. Develop greater insight into the current state of knowledge in cardio-oncology

7. Expand or update their knowledge of advanced heart failure treatment options, which patients should be referred to specialized centers, and advanced care planning

## Interventional and Structural

**As a result of participating in the Interventional and Structural Pathway sessions, learners will have an improved or reinforced ability to:**

1. Interpret and integrate findings from intravascular imaging and hemodynamic lesion assessment into clinical decision-making of acute coronary syndrome
2. Determine best utilization strategies for new and state-of-the-art percutaneous coronary technologies and techniques into patient care
3. Interpret and integrate findings from intravascular imaging and hemodynamic lesion assessment into clinical decision-making for complex coronary intervention
4. Describe step-by-step techniques to endovascular interventions
5. Work effectively as part of a comprehensive care team to manage patients before, during, and after interventional procedures
6. Work effectively as part of a comprehensive care team to manage patients before, during, and after interventional procedures
7. Incorporate innovative strategies, technologies and techniques in the cath lab
8. Determine the appropriate use of transcatheter aortic valve interventions in low-risk patients
9. Determine an appropriate antithrombotic regimen for patients with atrial fibrillation and acute coronary syndromes undergoing revascularization procedures
10. Determine an appropriate antithrombotic regimen for patients undergoing a revascularization procedure, especially those at high risk for bleeding
11. Understand the expanding indications for catheter based mitral valve therapies and appropriately incorporate new and state-of-the-art techniques and technologies for transcatheter procedures
12. Determine an appropriate antithrombotic regimen for diverse patients undergoing a revascularization procedure,
13. Work effectively as part of a comprehensive care team to manage patients through cardiogenic shock
14. Understand critical decisions making techniques for revascularization of patients who are high-risk or have complex coronary artery disease
15. Understand the expanding indications for catheter based right sided valve interventions and appropriately incorporate new and state-of-the-art techniques and technologies during right sided valve interventions
16. Appropriately incorporate state-of-the-art structural heart technologies and techniques into patient care
17. Determine appropriate antithrombotic regimens for diverse patients with acute coronary syndrome or those undergoing a revascularization procedure
18. Appropriately incorporate state-of-the-art endovascular technologies and techniques into patient care

19. Appropriately incorporate state-of-the-art endovascular technologies and techniques into patient care
20. Understand the expanding indications for catheter based aortic valve therapies and appropriately incorporate new and state-of-the-art techniques and technologies during transcatheter aortic valve repair
21. Evaluate the evidence from clinical trials describing outcomes, recent advances, and expanded applications of angiography and interventional cardiology, incorporating the evidence into clinical practice
22. Discuss the appropriate roles of shock teams and mechanical support devices in cardiogenic shock
23. Incorporate new, state-of-the-art transcatheter valve technologies and techniques into patient care
24. Discuss the current controversies in valvular heart disease
25. Describe appropriate case selection and management strategies in cardiogenic shock
26. Evaluate the evidence from clinical trials describing outcomes, recent advances, and expanded applications of transcatheter mitral valve replacement and incorporate the evidence into clinical practice
27. Discuss the pros and cons of current controversies in aortic valve interventions
28. Determine appropriate antiplatelet regimens for patients with acute coronary syndrome or those undergoing coronary revascularization
29. Understand the expanding indications for venous interventions
30. Describe step-by-step techniques to optimal left main coronary interventions
31. Discuss the pros and cons of current controversies in vascular medicine
32. Discuss the pros and cons of current controversies in Interventional Cardiology
33. Discuss varying management strategies in patients undergoing coronary intervention of calcified lesions
34. Describe strategies for preventing and managing interventional complications

### Ischemic Heart Disease

**As a result of participating in the Ischemic Heart Disease Pathway sessions, learners will have an improved or reinforced ability to:**

1. Provide comprehensive contemporary care to patients presenting with ST-elevation myocardial infarction
2. Compare and contrast the role and methods of preoperative cardiovascular evaluation prior to non-cardiac surgery
3. Highlight disparities and discuss potential solutions in the management of acute and stable ischemic heart disease
4. Contrast global approaches to systems of care in STEMI, stroke, cardiac arrest, and shock
5. Analyze current studies impacting the care of ischemic heart disease patients

6. Choose diagnostic testing wisely to maximize appropriate utilization in stable ischemic heart disease
7. Highlight recruitment strategies, contemporary evidence, advocacy approaches and care optimization in cardiac rehabilitation
8. Analyze challenges and opportunities in the use of telehealth to optimize contemporary ischemic heart disease care
9. Describe the management of complications seen in ischemic heart diseases
10. Assess and appropriately manage patients with cardiogenic shock or in need of critical care
11. Evaluate practical approaches to treating patient with ACS including anti-platelet and anticoagulant therapy
12. Better understand the less common causes of acute coronary syndromes including SCAD, and MINOCA
13. Illustrate optimal approaches for the diagnosis and treatment of ischemia and no obstructive coronary artery disease

### Multimodality Imaging

**As a result of participating in the Multimodality Imaging Pathway sessions, learners will have an improved or reinforced ability to:**

1. Apply current imaging guidelines for the assessment of valvular, myocardial, coronary, and structural heart diseases
2. Identify both current and emerging role of stress echo for evaluating cardiac disorders beyond obstructive CAD
3. Evaluate recent innovations and established techniques in advanced imaging and their potential uses in complex disorders such as endocarditis, microvascular disease and cardiomyopathies
4. Appreciate the future of cardiovascular imaging by understanding the role of artificial intelligence and role of imaging registries
5. Recognize the utility of multimodality imaging in the management of patients who require percutaneous mitral valve interventions
6. Understand the role of non-invasive imaging in special populations such as cardio-oncology, older adults, athletes and COVID-19 infections

### Pediatric and Congenital Heart Disease

**As a result of participating in the Pediatric and Congenital Heart Disease (PCHD) Pathway sessions, learners will have an improved or reinforced ability to:**

1. Identify strategies to effectively evaluate and manage congenital heart disease throughout the lifespan from childhood to adult life
2. Discuss innovative therapies and complex clinical scenarios in CHD patients undergoing transplantation, cardiac surgery, pregnancy

3. Describe the role of novel transcatheter therapies and surgical techniques in the management of CHD
4. Critically evaluate emerging imaging applications in CHD
5. Incorporate the lessons learned from COVID-19 into clinical practice and education
6. Critically evaluate the literature regarding long term outcomes in CHD
7. Describe the burden of cardiac disease in children around the world and identify approaches to sustainable program development
8. Incorporate the experiences of others to help manage professional challenges

### Prevention and Health Promotion

**As a result of participating in the Prevention and Health Promotion Pathway sessions, learners will have an improved or reinforced ability to:**

1. Understand and discuss the impact of cardiovascular risk factors and novel approaches to cardiovascular disease prevention in the COVID era and beyond
2. Recognize the value of nutrition in promotion of cardiovascular health and understand the evidence that supports various dietary approaches
3. Understand cardiovascular risk factors across the life span from birth to old age and better appreciate the role of genetics in cardiovascular disease
4. Apply the current evidence base to determine thresholds for hypertension treatment, establish therapeutic goals, and implement team-based processes to achieve blood pressure control in simple and complex cases
5. Appreciate the interplay between diabetes, obesity, inflammation and cardiometabolic risk and how to tailor management strategies based on available evidence
6. Understand the role of LDL and other lipoproteins in the development and progression of ASCVD and how pharmacological targeting of novel pathways can reduce cardiovascular risk
7. Define and appreciate gender specific cardiovascular issues
8. Define and appreciate the nuances of cardiovascular risk prevention in special populations
9. Integrate best practices with regards to lifestyle and dietary recommendations to prevent or manage ASCVD and related diseases, such as diabetes
10. Recognize the evolving role of genomics, biomarkers, and imaging to personalize ASCVD risk assessment and the use of ASCVD risk reduction therapies
11. Appreciate disparities in risk factor prevalence and unique approaches to prevention and management of cardiovascular risk in vulnerable populations
12. Recognize the importance of physical activity in cardiovascular disease prevention
13. Review the importance of cardiac rehabilitation and discuss other aspects such as smoking, sex and depression in patients with cardiovascular disease
14. Understand the biology of vulnerable plaques, understand imaging approaches to detect vulnerable plaques and appreciate the uncertainties in managing vulnerable plaques



## Pulmonary Vascular Disease

As a result of participating in the Pulmonary Vascular Disease Pathway sessions, learners will have an improved or reinforced ability to:

1. Evaluate the multiple potential etiologies of pulmonary hypertension and the diagnostic and therapeutic options for patients with pulmonary hypertension
2. Utilize shared decision making and adjunctive resources in caring for patients with pulmonary hypertension
3. Recognize and treat right heart failure related to pulmonary hypertension
4. Review both sides of the debate in controversies in pulmonary hypertension
5. Realize the global burden and global health disparities related to pulmonary hypertension

## Valvular Heart Disease

As a result of participating in Valvular Heart Disease (VHD) Pathway sessions, learners will have an improved or reinforced ability to:

1. Apply recent updates to guidelines and recommend best practices for valvular care to clinical practice
2. Recognize how the mechanism, natural history, diagnosis and treatment options of patients with valve disease continue to evolve and affect patient care algorithms
3. Assess the role of imaging and physiologic testing in characterizing valvular disease and guiding management
4. Incorporate the heart team approach to treatment of patients with VHD
5. Incorporate the evidence on contemporary diagnostic and treatment options into clinical decision-making for patients with VHD
6. Compare strategies in assessment, diagnosis and treatment of special populations with valvular heart disease
7. Define and influence limitations in care of valvular heart disease in a global prospective
8. Recognize and translate current practices in endocarditis in the setting of the opioid epidemic

## Vascular Medicine

As a result of participating in the Vascular Medicine Pathway sessions, learners will have an improved or reinforced ability to:

1. Evaluate the evidence associated with current management of vascular diseases, including COVID-19 related vascular disorders
2. Describe the disparities in care for and potential role of emerging therapies for patients with peripheral artery disease

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3. Incorporate recent clinical trial findings and evidence-based guideline recommendations into the treatment of patients with vascular disease, including special populations
4. Recognize effective treatment of common vascular and thrombotic complications of cancer and cancer-directed therapy