

CLINICAL CARDIAC ELECTROPHYSIOLOGY Blueprint

For traditional, 10-year Maintenance of Certification (MOC) exam

ABIM invites diplomates to help develop the Clinical Cardiac Electrophysiology MOC exam blueprint

Based on feedback from physicians that MOC assessments should better reflect what they see in practice, in 2016 the American Board of Internal Medicine (ABIM) invited all certified electrophysiologists to provide ratings of the relative frequency and importance of blueprint topics in practice.

This review process, which resulted in a new MOC exam blueprint, will be used on an ongoing basis to inform and update all MOC assessments created by ABIM. No matter what form ABIM's assessments ultimately take, they will need to be informed by front-line clinicians sharing their perspective on what is important to know.

A sample of over 160 electrophysiologists, similar to the total invited population of electrophysiologists in age, gender, time spent in direct patient care, and geographic region of practice, provided the blueprint topic ratings. ABIM used this feedback to update the blueprint for the MOC assessment (beginning with the Fall 2017 administration).

To inform how assessment content should be distributed across the major blueprint content categories, ABIM considered the average respondent ratings of topic frequency and importance in each of the content categories.

To determine prioritization of specific assessment content within each major medical content category, ABIM used the respondent ratings of topic frequency and importance to set thresholds for these parameters in the exam assembly process (described further under *Detailed content outline* below).

Purpose of the Clinical Cardiac Electrophysiology MOC Assessment

The MOC assessment is designed to evaluate whether a certified electrophysiologist has maintained competence and currency in the knowledge and judgment required for practice. The assessment emphasizes diagnosis and management of prevalent conditions, particularly in areas where practice has changed in recent years. As a result of the blueprint review by ABIM diplomates, the MOC assessment places less emphasis on rare conditions and focuses more on situations in which physician intervention can have important consequences for patients. For conditions that are usually managed by other specialists, the focus will be on recognition rather than on management.

Assessment format

The assessment contains up to 190 single-best-answer multiple-choice questions, of which up to 45 are new questions that do not count in the examinee's score. Examinees taking the traditional, 10-year MOC exam will have access to an external resource (i.e., UpToDate®) for the entire exam. More information on how assessments are developed can be found at abim.org/about/exam-information/exam-development.aspx.

Most questions describe patient scenarios and ask about the work done (that is, tasks performed) by physicians in the course of practice:

- Diagnosis: making a diagnosis or identifying an underlying condition
- · Testing: ordering tests for diagnosis, staging, or follow-up
- Treatment/Care Decisions: recommending treatment or other patient care
- Risk Assessment/Prognosis/Epidemiology: assessing risk, determining prognosis, and applying principles from epidemiologic studies
- Pathophysiology/Basic Science: understanding the pathophysiology of disease and basic science knowledge applicable to patient care

JANUARY 2024

ABIM is committed to working toward health equity and believes that board-certified physicians should have an understanding of health care disparities. Therefore, health equity content that is clinically important to each discipline will be included in assessments, and the use of gender, race, and ethnicity identifiers will be re-evaluated.

Clinical scenarios presented take place in outpatient or inpatient settings as appropriate to a typical electrophysiology practice. Clinical information may include pictorial material, radiographs, electrocardiograms, echocardiograms, venograms, fluoroscopy images, and other media to illustrate relevant patient findings.

A tutorial, including examples of ABIM assessment question format, can be found at abim.org/maintenance-of-certification/ exam-information/clinical-cardiac-electrophysiology/examtutorial.aspx.

Content distribution

Listed below are the major medical content categories that define the domain for the Clinical Cardiac Electrophysiology traditional, 10-year MOC exam. The relative distribution of content is expressed as a percentage of the total assessment. To determine the content distribution, ABIM considered the average respondent ratings of topic frequency and importance. Informed by these data, the Clinical Cardiac Electrophysiology Approval Committee and Cardiovascular Board have determined the medical content category targets shown below.

CONTENT CATEGORY	TARGET %
Basic Physiology, Anatomy, Pharmacology, and Genetics	10%
Clinical Arrhythmias: Core Concepts	6%
Clinical Arrhythmias: Bradycardias	6%
Clinical Arrhythmias: Atrial	14%
Clinical Arrhythmias: Supraventricular Tachycardias	17%
Clinical Arrhythmias: Ventricular	17%
Devices	22%
Clinical Scenarios and Syndromes	8%
Total	100%

How the blueprint ratings are used to assemble the MOC assessment

Blueprint reviewers provided ratings of relative frequency in practice for each of the detailed content topics in the blueprint and provided ratings of the relative importance of the topics for each of the tasks described in *Assessment format* above. In rating importance, reviewers were asked to consider factors such as the following:

- High risk of a significant adverse outcome
- · Cost of care and stewardship of resources
- Common errors in diagnosis or management
- Effect on population health
- · Effect on quality of life
- When failure to intervene by the physician deprives a patient of significant benefit

Frequency and importance were rated on a three-point scale corresponding to low, medium, or high. The median importance ratings are reflected in the *Detailed content* outline below. The Clinical Cardiac Electrophysiology Approval Committee and Cardiovascular Board, in partnership with the physician community, have set the following parameters for selecting MOC assessment questions according to the blueprint review ratings:

- At least 75% of questions will address high-importance content (indicated in green)
- No more than 25% of questions will address mediumimportance content (indicated in yellow)
- No exam questions will address low-importance content (indicated in red)

Independent of the importance and task ratings, no more than 20% of questions will address low-frequency content (indicated by "LF" following the topic description).

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The content selection priorities below are applicable beginning with the Fall 2017 traditional, 10-year MOC exam and are subject to change in response to future blueprint review.

Note: The same topic may appear in more than one medical content category.

Detailed content outline for the Clinical Cardiac Electrophysiology traditional, 10-year MOC exam



— **High Importance**: At least 75% of questions will address topics and tasks with this designation.

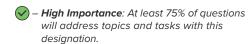


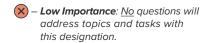
/ – **Medium Importance**: No more than 25% of questions will address topics and tasks with this designation.



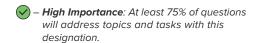
— Low Importance: No questions will address topics and tasks with this designation.

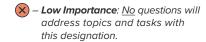
BASIC PHYSIOLOGY, ANATOMY, PHARMACOLOGY, AND GENETICS (10% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science	
CELLULAR ELECTROPHYSIOLOGY (<29	% of exam)					
Action potentials	.F	Not Applicable		⊘	⊘	
Ion channels and currents	.F		Not Applicable		⊘	
Receptors	.F	Not Ap	plicable		⊘	
Gap junctions		Not Applicable				
CARDIAC ANATOMY (<2% of exam)						
Cardiac anatomy		Not Applicable				
CARDIAC TISSUE PHYSIOLOGY (5% of e	exam)					
Refractory periods		Not Ap	plicable		⊘	
Neuronal control – sympathetic nervous system and catecholamines		Not Ap	plicable		⊘	
Atrioventricular (AV) and ventriculoatrial (VA) conduction delay and block	⊘	Not Applicable	⊘	Not Applicable	⊘	
Mechanisms of arrhythmias	⊘		Not Applicable		\bigcirc	
Electrical and structural remodeling		Not Applicable				
Repolarization – dispersion and reserve		Not Applicable				
Other physiologic phenomena (retrograde block, ACE inhibitors, fractionated electrograms, pseudonormalization)	⊘		Not Applicable		⊘	



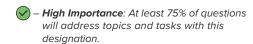


BASIC PHYSIOLOGY, ANATOMY, PHARMACOLOGY, AND GENETICS continued (10% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science	
PHARMACOLOGY (3% of exam)	Diagnosis	lesting	Care Decisions	Epideimology	Basic Science	
Pharmacokinetics		Not Applicable	\bigcirc	Not Applicable		
Use and reverse use dependence		rvot rippiioasio	Not Applicable	ποιπρησασίο	⊘	
Properties of antiarrhythmic agents	⊘	Not Applicable	⊘	Not Applicable	⊘	
GENETICS (<2% of exam)		.,		,,		
lon channels		Not App	plicable		⊘	
Non-ion channels LF		⊘	Not Ap	plicable	⊘	
CLINICAL ARRHYTHMIAS: CORE CONCEPTS (6% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology, Basic Science	
RECOGNITION OF ARTIFACT (<2% of exar	n)					
Recognition of artifact	⊘	⊘	\bigcirc	Not Ap	plicable	
PACING, SIGNAL RECORDING, AND MAP	PING SYSTEMS (E	LECTROPHYSIOL	OGY LABORATO	RY) (<2% of exam))	
Pacing, signal recording, and mapping systems (electrophysiology laboratory)	Not Applicable	⊘		Not Applicable		
NONINVASIVE TESTING (2% of exam)						
Indications	⊘	Not Applicable	\bigcirc	⊘	Not Applicable	
Tilt-table testing	⊘		Not Ap	plicable	,	
Interpretation of wide QRS tachycardias	⊘	Not Applicable	⊗	Not Applicable	⊘	
Ambulatory electrocardiographic monitoring	⊘	Not Applicable				
INVASIVE ELECTROPHYSIOLOGIC TESTI	NG (2% of exam)					
Indications	⊘	Not Applicable	⊘	⊘	Not Applicable	
Interpretations	⊘	\bigcirc	⊘	⊘	\bigcirc	
BIOPHYSICS OF ABLATION (<2% of exam)						
Biophysics of ablation	Not Applicable	⊘		Not Applicable		



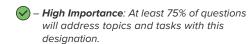


CLINICAL ARRHYTHMIAS: CORE CONCEPTS continued (6% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
TRANSSEPTAL CATHETERIZATION AND I	PERICARDIAL ACC	ESS (<2% of exam	n)		
Transseptal catheterization and pericardial access	Not Applicable	⊗	⊗	Not Ap	plicable
CARDIAC AND INTRACARDIAC IMAGING	(<2% of exam)				
Cardiac and intracardiac imaging	\bigcirc	Not Applicable	\bigcirc	Not Ap	plicable
CLINICAL ARRHYTHMIAS: BRADYCARDIAS (6% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
SINUS NODE DYSFUNCTION (<2% of exam	n)				
Sinus node dysfunction	⊘	Not Applicable	⊘	Not Applicable	⊘
AV BLOCK (4% of exam)					
AV nodal block	⊘	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Infranodal AV block	⊘	⊘	⊘	⊘	⊘
ESCAPE AND ACCELERATED RHYTHMS	(<2% of exam)				
Escape and accelerated rhythms	⊘	Not Applicable	⊘	Not Ap	plicable
CLINICAL ARRHYTHMIAS: ATRIAL (14% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ATRIAL FIBRILLATION (6% of exam)					
Mechanism and etiology		Not Ap	plicable		⊘
ECG monitors and remote monitoring	⊘	Not Applicable	⊘	Not Ap	plicable
Pharmacologic treatment	Not Ap	plicable	\bigcirc	Not Ap	plicable
Postoperative atrial fibrillation	Not Ap	plicable	\bigcirc	⊘	Not Applicable
Stroke prevention	Not Ap	plicable	\bigcirc	\bigcirc	Not Applicable



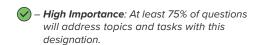
Low Importance: No questions will address topics and tasks with this designation.

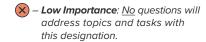
CLINICAL ARRHYTHMIAS: ATRIAL continued (14% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ATRIAL FIBRILLATION continued (6% of e	exam)				
Cardioversion	Not Ap	plicable	⊘	⊘	Not Applicable
Catheter ablation	\bigcirc	⊘	\bigcirc	Not Applicable	⊘
Surgical ablation	Not Ap	plicable	⊘	Not Ap	plicable
AV junction ablation	Not Ap	plicable	\bigcirc	Not Ap	plicable
ATRIAL FLUTTER (4% of exam)					
ECG monitors and remote monitoring	⊘		Not Applicable		\bigcirc
Pharmacologic treatment	Not Ap	plicable	⊘	Not Ap	plicable
Stroke prevention	Not Ap	plicable	⊘	⊘	Not Applicable
Cardioversion	Not Ap	plicable	⊘	⊘	Not Applicable
Cavotricuspid isthmus (CTI) dependent atrial flutter	⊘	Not Applicable	⊘	Not Applicable	⊘
Atypical right atrial flutter	\bigcirc	Not Applicable	\bigcirc	Not Applicable	
Atypical left atrial flutter	⊘	⊘	⊘	Not Applicable	⊘
FOCAL ATRIAL TACHYCARDIAS (4% of exa	am)				
ECG monitors and remote monitoring	⊘	Not Applicable	\bigcirc	Not Applicable	⊘
Pharmacologic treatment	Not Ap	plicable	⊘	Not Applicable	
Catheter ablation	⊘	Not Applicable	⊘	⊘	Not Applicable
CLINICAL ARRHYTHMIAS: SUPRAVENTRICULAR TACHYCARDIAS (17% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ACCESSORY PATHWAY SYNDROMES (119	% of exam)				
ECG monitors and remote monitoring	⊘	Not Applicable	⊘	⊘	⊘
Pharmacologic treatment	Not Ap	plicable	⊘	Not Ap	plicable
Electrophysiologic studies in ventricular preexcitation	⊘	Not Ap	plicable	⊘	⊘
Electrophysiologic studies in orthodromic AVRT (typical and atypical pathways)	⊘	\bigcirc	\bigcirc	\bigcirc	⊘



 - Low Importance: No questions will address topics and tasks with this designation.

CLINICAL ARRHYTHMIAS: SUPRAVENTRICULAR TACHYCARDIAS continued			Treatment/	Risk Assessment/ Prognosis/	Pathophysiology/
(17% of exam)	Diagnosis	Testing	Care Decisions	Epidemiology	Basic Science
ACCESSORY PATHWAY SYNDROMES con	tinued (11% of e	exam)			
Electrophysiologic studies in antidromic AVRT (typical and atypical pathways)	⊘	⊘	⊘	Not Applicable	⊘
Ablation of accessory pathways	\bigcirc	Not Applicable	\bigcirc	\bigcirc	\bigcirc
Fasciculoventricular pathways LF			Not Ap	plicable	
Multiple pathways LF	⊘		Not Ap	plicable	
AV NODAL REENTRY TACHYCARDIA (AVN	IRT) (5% of exam)				
Typical AVNRT (ECGs, pharmacologic treatment, intracardiac recordings, and ablation)	⊘	⊘	⊘	⊘	⊘
Atypical AVNRT (ECGs, pharmacologic treatment, intracardiac recordings, and ablation)	⊘	⊘	⊘	⊘	⊘
JUNCTIONAL TACHYCARDIAS (<2% of exa	am)				
ECG monitors and remote monitoring	⊘		Not Ap	plicable	
Pharmacologic treatment LF	Not A	oplicable	⊘	Not Ap	plicable
Interpretation of electrophysiology recordings	⊘	Not Applicable	⊘	Not Ap	plicable
Ablation LF	Not A	oplicable	⊘	Not Ap	plicable
MULTIPLE SVT MECHANISMS (<2% of exa	m)				
ECG monitors and remote monitoring	⊘		Not Ap	plicable	
Pharmacologic treatment	Not A	oplicable	\bigcirc	Not Ap	plicable
Interpretation of electrophysiology recordings	⊘		Not Ap	plicable	
Ablation	Not A	Not Applicable Not Applicable			plicable





LF - Low Frequency: No more than 20% of questions will address topics with this designation, regardless of task or importance.

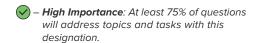
CLINICAL ARRHYTHMIAS: VENTRICULAR (17% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ECGS AND AMBULATORY MONITOR	I NG (4	% of exam)				
Ambulatory monitor recordings		⊘		Not Ap	plicable	
ECG localization – premature ventricular complexes (PVC) and VT		\bigcirc	Not Applicable	\bigcirc	Not Applicable	
CORE CONCEPTS (5.5% of exam)						
Indications for invasive electrophysiologic studies		⊘	Not Applicable	⊘	⊘	⊘
Interpretation of intracardiac recordings		⊘	Not Applicable	⊘	Not Ap	plicable
Pharmacologic treatment		Not Applicable	\bigcirc	\bigcirc	Not Ap	plicable
Principles of entrainment		\bigcirc	\bigcirc	\bigcirc	Not Applicable	\bigcirc
VENTRICULAR TACHYCARDIAS AND	ISCH	EMIC HEART DIS	EASE (2% of exam	n)		
Physiology			Not App	olicable		⊘
Endocardial ablation		\bigcirc	Not Applicable	\bigcirc	Not Applicable	\bigcirc
Epicardial ablation	LF	⊘	Not Applicable	⊘	Not Ap	plicable
Arrhythmias in patients with a left ventricular assist device (LVAD)*	LF		Not Applicable	⊘	Not Ap	plicable
Hemodynamic support during ablation*	LF		Not Applicable		Not Ap	plicable
VENTRICULAR TACHYCARDIAS AND	NON	SCHEMIC CARDI	OMYOPATHY (<2º	% of exam)		
Physiology			Not App	olicable		⊘
Endocardial ablation		\bigcirc	Not Applicable	\bigcirc	Not Applicable	⊘
Epicardial ablation	LF	⊘	Not Applicable	⊘	Not Applicable	⊘
Arrhythmias in patients with a left ventricular assist device (LVAD)*	LF		Not Applicable	⊘	Not Applicable	
Hemodynamic support during ablation*	LF		Not Applicable		Not Applicable	
VENTRICULAR TACHYCARDIAS AND	PREM	MATURE VENTRIC	CULAR COMPLEX	ES AND THE NO	RMAL HEART (3%	of exam)
Physiology		\bigcirc	Not Applicable	\bigcirc	\bigcirc	⊘
Endocardial ablation		⊘	Not Applicable	⊘	Not Ap	plicable

Not Applicable

LF

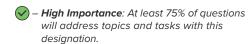
Epicardial ablation

Not Applicable



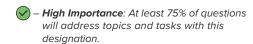
 Low Importance: No questions will address topics and tasks with this designation.

CLINICAL ARRHYTHMIAS: VENTRICULAR continued (17% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
VENTRICULAR FIBRILLATION AND POLY	MORPHIC VENTRIC	CULAR TACHYCA	RDIAS (<2% of ex	am)	
Physiology		Not App	plicable		⊘
ECG monitors and remote monitoring	⊘	Not Applicable	\bigcirc	Not App	olicable
Pharmacologic treatment	Not Ap	plicable	\bigcirc	Not App	olicable
Bradycardia-dependent	⊘	Not Applicable	\bigcirc	Not Ap	olicable
Drug-induced	⊘	Not Applicable	\bigcirc	Not Ap	olicable
Ischemic	⊘	Not Applicable	\bigcirc	Not Ap	olicable
Indications for invasive electrophysiologic studies	⊗	Not Applicable	⊘	⊘	Not Applicable
Ablation L	F 🗸	Not Applicable	⊘	Not App	olicable
DEVICES (22% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
GENERAL CONCEPTS (<2% of exam)					
Electromagnetic interference	\bigcirc			plicable	
Biophysics and bioengineering L	F Not Applicable		<u>/</u>	Not App	olicable
Lead extraction	Not Ap	plicable	\bigcirc	\bigcirc	Not Applicable
Infection	⊘	Not Applicable	\bigcirc	⊘	Not Applicable
Automatic external and wearable defibrillators	\bigcirc	⊘	⊘	⊘	Not Applicable
PACEMAKERS (7% of exam)					
Indications	⊘	Not Applicable	⊘	⊘	Not Applicable
Implantation techniques	Not Ap	plicable	⊘	Not Applicable	
Programming and follow-up	⊘	Not Applicable	⊘	Not App	olicable
Complications	⊘	Not Applicable	⊘	⊘	Not Applicable
Leadless pacing* L	F 🕜	Not Applicable	/	Not App	aliaahla



 Low Importance: No questions will address topics and tasks with this designation.

DEVICES continued (22% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
IMPLANTABLE CARDIOVERTER-DEFIBRI	ILLATOR (ICD) THE	RAPY (8% of exam)		
Indications	⊘	Not Applicable	⊘	⊘	Not Applicable
Implantation techniques		Not Applicable	\bigcirc	Not Ap	plicable
ECG monitors and remote monitoring	⊘	Not Applicable	\bigcirc	Not Ap	plicable
Programming	⊘	Not Applicable	⊘	Not Ap	plicable
Follow-up	⊘	Not Applicable	⊘	⊘	⊘
Complications	⊘	Not Applicable	⊘		Not Applicable
Subcutaneous implantable defibrillator*	⊘	Not Applicable	⊘	Not Applicable	
CARDIAC RESYNCHRONIZATION (5% of	exam)				
Indications	⊘	Not Applicable	\bigcirc	⊘	Not Applicable
Implantation techniques	Not Applicable	⊘	\bigcirc	Not Ap	plicable
ECG monitors and remote monitoring	⊘	Not Applicable	\bigcirc	Not Ap	plicable
Programming	⊘	Not Applicable	\bigcirc	Not Ap	plicable
Leads	⊘	Not Applicable	\bigcirc	Not Ap	plicable
Follow-up	⊘	Not Applicable	\bigcirc	⊘	Not Applicable
Complications	⊘	\bigcirc	\bigcirc	Not Ap	plicable
INSERTABLE LOOP RECORDERS (<2% or	f exam)				
Insertable loop recorders	\bigcirc	Not Applicable	\bigcirc	Not Ap	plicable



Low Importance: No questions will address topics and tasks with this designation.

CLINICAL SCENARIOS AND SYNDROMES (8% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
COMMON SCENARIOS (2% of exam)						
Syncope		⊘	⊘	⊘	⊘	Not Applicable
Palpitations		⊘	⊘	⊘	⊘	Not Applicable
Sudden cardiac death		⊘	⊘	⊘	⊘	Not Applicable
Ethics		Not Ap	plicable	⊘	⊘	Not Applicable
Manage advisories and recalls		Not Applicable	⊘	\bigcirc	⊘	⊘
SPECIFIC SYNDROMES (6% of exam)						
Long QT syndrome	LF	\bigcirc	⊘	\bigcirc	⊘	⊘
Brugada syndrome	LF	\bigcirc	⊘	\bigcirc	⊘	⊘
Catecholaminergic polymorphic VT	LF	⊘	⊘	⊘	⊘	⊘
Hypertrophic cardiomyopathy		⊘	⊘	⊘	⊘	⊘
Arrhythmogenic right ventricular cardiomyopathy	LF	⊘	⊘	⊘	⊘	⊘
Dilated cardiomyopathy		\bigcirc	Not Applicable	\bigcirc	⊘	\bigcirc
Sarcoidosis	LF	⊘	Not Applicable	⊘	⊘	⊘
Other arrhythmia substrates (musculoskeletal, short QT syndrome, early repolarization syndrome)	LF	⊘	⊘	⊘	⊘	⊘
Arrhythmias in pregnancy	LF	⊘	⊘	\bigcirc	⊘	Not Applicable
Arrhythmias in athletes		⊘	⊘	⊘	⊘	Not Applicable
Congenital heart disease	LF	⊘	⊘	⊘	⊘	Not Applicable