



ARDMS®

| Adult Echocardiography (AE) Tasks | |
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| Anatomy and Physiology | 25% |
| <i>Normal anatomy</i> | |
| Assess aorta and sinus of Valsalva | |
| Assess cardiac anatomy (e.g., chambers, muscle layers, etc.) | |
| Assess coronary sinus | |
| Assess pericardium | |
| Assess valve structure | |
| Assess vessels of venous return (i.e., venae cavae, hepatic veins, coronary veins) | |
| Assess wall segments (e.g., structure, nomenclature, etc.) | |
| <i>Normal physiology</i> | |
| Assess response to stress testing | |
| Assess systolic and diastolic function | |
| Assess valve function | |
| Assess venous return | |
| Identify the phases of the cardiac cycle | |
| Pathology | 37% |
| <i>Abnormal physiology and perfusion</i> | |
| Assess aneurysms (i.e., true, pseudo-) | |
| Assess aorta and sinus of Valsalva | |
| Assess aortic valve regurgitation | |
| Assess aortic valve stenosis | |
| Assess arrhythmias and conduction disturbances | |
| Assess cardiac thrombi, masses, and tumors | |
| Assess congenital heart disease | |
| Assess coronary arteries | |
| Assess diastolic function | |
| Assess endocarditis | |
| Assess ischemic cardiac diseases | |
| Assess left ventricle | |
| Assess mitral valve regurgitation | |
| Assess mitral valve stenosis | |
| Assess pericardial disease | |
| Assess pulmonary artery | |
| Assess pulmonic valve regurgitation | |

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| Assess pulmonic valve stenosis |
| Assess right ventricle |
| Assess segmental wall motion abnormalities |
| Assess septal defects |
| Assess systolic function |
| Assess tricuspid valve regurgitation |
| Assess tricuspid valve stenosis |
| Assess valve structure and function |
| Assess various congenital etiologies of heart disease |
| Assess venous return (i.e., venae cavae, hepatic veins, coronary veins, coronary sinus) |
| Evaluate for the presence of Ebstein anomaly |
| Evaluate for the presence of patent ductus arteriosus |
| Evaluate for the presence of tetralogy of Fallot |
| Identify and evaluate coarctation of aorta |
| Identify and evaluate endocardial cushion defect |
| Identify Marfan syndrome |
| <i>Postoperative evaluation</i> |
| Assess valve repair or replacement |
| Integration of Data 2% |
| <i>Incorporate outside data (Clinical assessment, history and physical [H&P], lab values)</i> |
| Assess clinical history or medical records |
| Protocols 25% |
| <i>Measurement techniques</i> |
| Assess aortic valve |
| Assess diastolic function |
| Assess Doppler recordings and measurements |
| Assess great vessels |
| Assess left atrium |
| Assess left ventricle |
| Assess mitral valve |
| Assess pulmonary artery pressure |
| Assess pulmonic valve |
| Assess right ventricle |
| Assess shunt ratios |
| Assess systolic function |
| Assess tricuspid valve |
| <i>Non-sonographic techniques</i> |
| Perform provocative maneuvers |

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| <i>Sonographic imaging views</i> | |
| | Assess apical views |
| | Assess parasternal views |
| | Assess subcostal views |
| | Assess suprasternal notch views |
| Physics and Instrumentation | 10% |
| <i>Artifacts</i> | |
| | Assess Doppler artifacts |
| | Assess imaging artifacts |
| <i>Hemodynamics</i> | |
| | Utilize ultrasound contrast agents |
| <i>Imaging instruments</i> | |
| | Adjust console settings to achieve optimal Doppler recording |
| | Adjust console settings to achieve optimal imaging display |
| | Utilize M-mode |
| | Utilize non-imaging probe |
| | Utilize saline contrast |
| Other | 1% |
| <i>Managing medical emergencies</i> | |
| | Recognize contraindications to contrast agents |