

	<b>Electrophysiology</b>	August 16, 2006
<b>Module Rationale and Competencies</b>	<p>In contemporary practice the assessment of the cardiothoracic patient requires a thorough understanding of the conduction system and electrophysiology of the heart. The role of currently available cardiac investigations and the indications for therapies currently utilised in cardiovascular disease must be appreciated.</p> <p>The Graduating Trainee will be able to:</p> <ul style="list-style-type: none"> <li>▪ Access and apply relevant knowledge to clinical practice</li> <li>▪ Maintain clinically relevant and accurate contemporaneous records</li> <li>▪ Accurately identify the risks and benefits of the chosen management plan and its alternatives</li> <li>▪ Plan and implement appropriate surveillance programs for cardiothoracic surgical disorders</li> <li>▪ Appreciate and act according to ethical standards within cardiothoracic surgery</li> <li>▪ Communicate information to patients (and their family) in ways that encourage their participation in informed decision making</li> <li>▪ Manage patients in ways that demonstrate sensitivity to their physical, social, cultural, and psychological needs</li> <li>▪ Approach and carry out procedures with due attention to safety of patient, self, and others</li> </ul>	
<b>Essential Reading</b>	Kirklin/Barratt-Boyes Cardiac Surgery: Morphology, Diagnostic Criteria, Natural History, Techniques, Results, and Indications Nicholas T. Kouchoukos (Editor), Churchill Livingstone (November 2003)	
<b>Recommended Reading</b>	Glenn's Thoracic and Cardiovascular Surgery (6th edition) Authors: Arthur E. Baue (Editor), Hillel Laks (Editor), Mastery of Cardiac Surgery ISBN: 0316482102 Cardiac Surgery in the Adult Lawrence H. Cohn & L. Henry Edmunds	
<b>References</b>	<a href="http://www.ctsnet.org/">http://www.ctsnet.org/</a> <a href="http://www.ctsnet.org/residents/ctsn/">http://www.ctsnet.org/residents/ctsn/</a>	
<b>Learning Opportunities and Methods</b>	<p>Clinical-Ward teaching</p> <ul style="list-style-type: none"> <li>- supervised ward rounds with consultant surgeon</li> <li>- multidisciplinary meetings within each unit</li> <li>- clinical audit meetings within each unit</li> <li>- structured teaching program within each unit including trainee presentations and journal club</li> </ul> <p>Clinical-Operating room teaching</p> <ul style="list-style-type: none"> <li>- structured program for progression and assessment of surgical skills</li> <li>- assistance with and observation of methods and techniques used for complicated surgery</li> </ul> <p>Online Image Bank with Case Scenarios  Online access to current journals within each unit  Access to unit database for research purposes</p>	

<b>Assessment and Examination</b>	<p>Self Assessment Tasks</p> <ul style="list-style-type: none"> <li>- multiple choice and short answer questions (have hyperlink)</li> </ul> <p>Essay Questions</p> <ul style="list-style-type: none"> <li>- set by and submitted regularly to unit's supervisor of surgical training</li> </ul> <p>Clinical Vivas</p> <ul style="list-style-type: none"> <li>- short and long cases performed with consultant surgeons</li> </ul> <p>Clinical Assessment and Mentor Reports</p>
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Level One	Level Two	Level Three	Level Four
<ul style="list-style-type: none"> <li>▪ Explain the development of arrhythmias</li> <li>▪ Discuss the pharmacology of drug therapy for arrhythmia</li> <li>▪ Interpret electrocardiograms</li> <li>▪ Compare the normal and variant anatomy of the conduction system</li> <li>▪ Take a history, examine, diagnose, perform (and/or arrange for) appropriate therapeutic procedures, and manage patients with arrhythmias</li> <li>▪ Apply their thorough knowledge of the anatomy, physiology, and pathology of disorders of the conduction system to accurately diagnose and effectively manage patients</li> </ul>	<ul style="list-style-type: none"> <li>▪ Discuss the physiology of rhythm disturbance</li> <li>▪ Accurately identify risk factors associated with arrhythmias</li> <li>▪ Review the risks and benefits of electrophysiology studies</li> <li>▪ Select medically appropriate investigative tools to carry out clinical investigations and monitoring techniques in a cost-effective, ethical and effective manner</li> </ul>	<ul style="list-style-type: none"> <li>▪ Communicate information about procedures and risks in relation to arrhythmias to patients (and/or their family) in ways that encourage their participation in informed decision making and on-going management</li> <li>▪ Appropriately adjust the way they communicate with patients to accommodate cultural and linguistic differences and emotional status</li> <li>▪ Perform the pre and postoperative care of patients undergoing surgery for arrhythmias</li> </ul>	<ul style="list-style-type: none"> <li>▪ Summarise the rationale for and describe techniques of surgery for arrhythmias</li> <li>▪ Interpret and discuss the available literature regarding the outcomes of interventions for arrhythmias</li> <li>▪ Perform insertion of pacemaker, defibrillator, arrhythmia surgery</li> <li>▪ Manage patients (operatively and non-operatively) with arrhythmias</li> </ul>
<ul style="list-style-type: none"> <li>• Evaluate patients with arrhythmia</li> <li>• Read and interpret invasive and non invasive tests of patients with arrhythmia</li> <li>• Direct the critical care management of pre and post operative patients with arrhythmia</li> <li>• Manage temporary pacing systems</li> </ul>	<ul style="list-style-type: none"> <li>• Perform operative and non-operative management of patients with arrhythmia</li> <li>• Implant pacemakers and defibrillators</li> </ul>	<ul style="list-style-type: none"> <li>• Perform operative and non-operative management of patients with arrhythmia</li> <li>• Implant pacemakers and defibrillators</li> </ul>	<ul style="list-style-type: none"> <li>• Perform operative and non-operative management of arrhythmia</li> <li>• Perform surgery for ventricular tachycardia, aberrant pathways</li> <li>• Implant pacemakers and defibrillators</li> <li>• Perform surgery for atrial fibrillation</li> </ul>

