

	<b>Heart failure / Transplantation</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 natural history of End-stage Cardiac failure. The role of currently available cardiac investigations and the indications for therapies currently utilised in cardiovascular disease must be appreciated.</p> <p><u>The Graduating Trainee will be able to:</u></p> <ul style="list-style-type: none"> <li>▪ Recognise and solve real-life problems</li> <li>▪ Effectively manage complications of operative procedures and the underlying disease process</li> <li>▪ Maintain existing skills and acquire new skills</li> <li>▪ Manage patients in ways that demonstrate sensitivity to their physical and psychological needs</li> <li>▪ Approach and carry out procedures with due attention to safety of patient, self, and others</li> <li>▪ Communicate information to patients (and their family) in ways that encourage their participation in informed decision making</li> <li>▪ Communicate with and co-ordinate surgical teams to achieve an optimal surgical environment</li> <li>▪ Draw on different kinds of knowledge in order to weigh up patient's problems in terms of context, issues, needs, and consequences</li> </ul>	
<b>Essential Reading</b>	Heart and Lung Transplantation <b>ISBN: 0721673635</b>	
<b>Recommended Reading</b>	Mastery of Cardiac Surgery <b>ISBN: 0316482102</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> Glenn's Thoracic and Cardiovascular Surgery (6th edition) Authors: Arthur E. Baue (Editor), Hillel Laks (Editor), Mastery of Cardiac Surgery <b>ISBN: 0316482102</b> Cardiac Surgery in the Adult Lawrence H. Cohn & L. Henry Edmunds	
<b>References</b>	<a href="http://www.corereview.org/">http://www.corereview.org/</a>	
<b>Learning Opportunities and Methods</b>	Clinical-Ward teaching in selected Transplantation Units <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 programme within each unit including trainee presentations and journal club</li> </ul> Clinical-Operating room teaching <ul style="list-style-type: none"> <li>- structured programme for progression and assessment of surgical skills</li> <li>- assistance with and observation of methods and techniques used for complicated surgery</li> </ul> Online access to current journals within each unit Access to unit database for research purposes	
<b>Assessment and Examination</b>	Self Assessment Tasks <ul style="list-style-type: none"> <li>- multiple choice and short answer questions (have hyperlink)</li> </ul> Essay Questions <ul style="list-style-type: none"> <li>- set by and submitted regularly to unit's supervisor of surgical training</li> </ul> Clinical Vivas <ul style="list-style-type: none"> <li>- short and long cases performed with consultant surgeons</li> </ul> Clinical Assessment and Mentor Reports	

Level One	Level Two	Level Three	Level Four
<ul style="list-style-type: none"> <li>• Explain the clinical pathology of cardiac rejection</li> <li>• Recognise the clinical signs and symptoms of cardiac rejection</li> <li>• Interpret invasive and non-invasive parameters to assess heart in failure</li> <li>• Explain the physiology of the failing heart and the derangements caused</li> <li>• Explain the advantages and disadvantages of the variety of mechanical devices currently applied</li> <li>• Explain the rationale for and techniques of surgery for mechanical implantation</li> <li>• Discuss the various aetiologies of end-stage heart failure</li> <li>• Take a history, examine, diagnose, perform (and/or arrange for) appropriate therapeutic procedures, and manage patients exhibiting end-stage heart failure</li> </ul>	<ul style="list-style-type: none"> <li>• Review the range of medical and non-mechanical surgical therapies available before considering mechanical support</li> <li>• Accurately identify risk factors associated with cardiac failure</li> <li>• Describe the indications and perform the assessment process for cardiac transplantation</li> <li>• Apply their thorough knowledge of the anatomy, physiology, and pathology of disorders causing end-stage heart failure to accurately diagnose and effectively manage patients</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 mechanical circulatory support to patients (and/or their family) in ways that encourage their participation in informed decision making and on-going management</li> <li>• Work collaboratively as a member of a multi-discipline team</li> <li>• Employ a consultative approach with colleagues and other professionals</li> <li>• Summarise the pre and postoperative care of patients undergoing mechanical support surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Indicate the issues of evaluating and managing donor organs</li> <li>• Safely demonstrate the methods of donor organ harvest and preservation</li> <li>• Interpret and discuss the available literature regarding the outcomes of medical and surgical management of heart failure</li> <li>• Manage immunosuppressive therapy regimes</li> <li>• Manage patients (operatively and non-operatively) with mechanical devices</li> <li>• Effectively perform the surgical techniques particular to cardiac transplantation</li> </ul>
<ul style="list-style-type: none"> <li>• Read and interpret invasive and non invasive tests of patients with end stage heart failure</li> <li>• Assist/attend to/participate in critical care management of pre and post operative patients following transplantation</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in the performance and evaluation of cardiac transplant patients postoperative care and monitoring</li> <li>• Evaluate patients with end-stage heart failure</li> <li>• Read and interpret invasive and non invasive tests of patients with heart failure</li> <li>• Participate in the evaluation of patients for mechanical support</li> </ul>	<ul style="list-style-type: none"> <li>• Perform operative management of donor organ procurement and assessment</li> <li>• Participate in the operative management of Cardiac transplantation</li> <li>• Participate in operative and non-operative management of patients with mechanical support</li> <li>• Demonstrate understanding of device selection</li> </ul>	<ul style="list-style-type: none"> <li>• Perform operative and non-operative management of patients having mechanical support/cardiac transplantation</li> <li>• Participate in and perform the surgical care in the postoperative period following cardiac transplantation</li> <li>• Direct the critical care management of pre and post operative patients with mechanical support</li> </ul>

