**Cardiology Electrophysiology Training**

**Cardiology Advanced Training Program**

**TRAINING AIM**

* To achieve an awareness of the nature of clinical cardiac electrophysiology (EP).
* To understand the anatomical, physiological and pathological basis for cardiac arrhythmias.
* To obtain experience in the management of patients with brady and tachyarrhythmias.
* To gain an appreciation of the different treatment modalities available to patients with these conditions.

Trainees should have a knowledge of ion channel physiology and the genetics and pathophysiology of inherited arrhythmia disorders. In addition, trainees are expected to gain an understanding of the important role that clinical cardiac EP plays in the treatment of patients with heart failure.

Trainees expected to complete and record evidence of the minimum requirements during this period.

**MINIMUM ACCEPTABLE EXPOSURE**

Over the course of core training, trainees must fulfil the requirements outlined below with respect to clinical involvement, exposure and experience. The method of achieving these requirements will vary between Cardiology units depending on the presence or absence of a comprehensive EP unit within the hospital, staffing, rostering etc.

The experience could be gained by a single dedicated attachment to an EP unit for at least 3 weeks or a series of attachments, such as a session or day over the training period.

Trainees would be expected to participate in the clinical decision to:

* recommend the undertaking of EP studies / ablation procedures / device implantations
* observe the procedures
* participate in the immediate post-procedure management and the discussion regarding subsequent treatment

**1. Electrophysiology studies | 20 cases**The trainee is expected to assess the patients and their prior investigation results (for example ECGs, Holter, treadmill stress test, echocardiography, coronary angiography), explain the indications for the EP study and be present during the EP study.   
  
The trainee would be expected to explain the details of the study itself and the possible complications, participate in the immediate post-procedure management and in the discussions regarding subsequent treatment.

**2. Catheter ablation | 10 cases**The trainee is expected to assess the patients and their prior investigation results (ECG, Holter, prior EP studies, and where relevant echocardiography and coronary angiography), explain the indications for ablation and the potential complications of ablation. Alternatives to ablation as treatment for their arrhythmia should also be understood by the trainee and explained to the patient. The trainee would be expected to be present during the ablation procedure and participate in the immediate post-procedure management.

**3.1. Pacemaker implantation | 10 cases**

The trainee is expected to assess the patients and their prior investigation results (ECG, Holter, prior EP studies), explain the indications for pacing, have an understanding of the possible procedural and long term complications of pacemaker implantation, be present during the pacemaker implantation and participate in the immediate post-implantation management. Ideally the trainee should be present at the insertion of both single chamber and dual chamber pacemakers.

**3.2. ICD implantation | 3 cases**

The trainee is expected to be involved in the assessment of the patients and their suitability for ICD implantation, have an understanding of the possible procedural and long term complications of ICD implantation, have a basic understanding of the programming of the ICD and be involved in post-procedure care.

**3.3. Cardiac resynchronisation devices | 3 cases**

The trainee is to be involved in the assessment of patients for consideration of cardiac resynchronisation therapy (CRT). The trainee should understand the indications for CRT and the principles underlying this mode of treatment for patients with congestive cardiac failure. The trainee is expected to be present at the implantation of the device and understand the technical issues both during and after implantation. The trainee should also understand the principles of optimisation of CRT settings.

**4. Operational skills for temporary pacing wire insertion**

The trainee is expected to acquire theoperational skills to perform right heart catheterisation via the femoral vein; these skills could be acquired through direct participation in EP studies. The trainee will be expected to have the necessary knowledge to manage a temporary pacing wire post insertion.

**5. Attend pacemaker clinic**

Review a minimum of 20 patients and demonstrate an understanding of the pacemaker programming modes, how to recognise and troubleshoot pacemaker dysfunction, and appreciate the principles of resynchronisation therapy. Note that these cases may be included in the 75 pacemaker reviews needed to meet logbook requirements.

**6. Ward rounds**

The trainee is required to participate in the daily review of patients admitted for investigation and management of arrhythmias, along with patients found to have significant arrhythmias complicating their admission.

**7. Brief case presentation | 2 cases**

The trainee will present to a working meeting of the cardiology unit. Each case should include discussion of both acute and long-term arrhythmia management strategies.

**8. Supervisor assessment**

The trainee should be given formal feedback from a cardiologist qualified in clinical electrophysiology.

**9. Documentation**

The details of the patients assessed in items 1, 2, 3 and 5, and the cases presented in item 7 should be documented in the trainee’s logbook. A statement indicating satisfactory attendance and performance during the EP rotation should be signed by a supervising cardiologist qualified in clinical electrophysiology.

**CONTACT INFORMATION**

|  |  |
| --- | --- |
| **Australian office** | **Aotearoa New Zealand office** |
| Phone: +61 2 8247 6231  Email: [Cardiology@racp.edu.au](mailto:Cardiology@racp.edu.au) | Phone: +64 4 460 8123  Email: [Cardiology@racp.org.nz](mailto:Cardiology@racp.org.nz) |

|  |
| --- |
|  |

**ELECTROPHYSIOLOGY (EP) TRAINING SUPERVISOR’S REPORT**

**Adult Medicine Division**

**SUBMISSION INFORMATION**

1. Complete EP Supervisor’s Report with supervisors
2. Email an electronic or clearly scanned copy to the relevant education office email address above. Supervisors must be copied into the submission email for their records.
3. Ensure you have saved a copy for your records.

**TRAINEE DETAILS AND TRAINING POSITION**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Trainee’s full name |  | | | | |
|  | | | | | |
| Report covers period | From |  | To | |  |
|  | | Date (dd/mm/yy) | |  | Date (dd/mm/yy) |
|  | | | | | |
| Training position |  | | | | |
|  | | | | | |
| Year of Advanced Training |  | | | | |

**EP SUPERVISOR DETAILS**

|  |  |  |  |
| --- | --- | --- | --- |
| Supervisor’s full name |  | | |
|  |  | | |
| Qualifications |  | | |
|  |  | | |
| Department |  | | |
|  |  | | |
| Hospital |  | | |
|  |  | | |
| Phone (W) |  | Fax (W) |  |
| Email |  | | |

**CLINICAL SUPERVISOR DETAILS**

As nominated on your annual application

|  |  |
| --- | --- |
| Supervisor’s full name |  |
|  |  |
| Department |  |
|  |  |
| Hospital |  |

**EP SUPERVISOR’S COMMENTS**

|  |
| --- |
|  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | I have discussed this assessment with the trainee and make the following comments: | | | |
| **or** |  | | | |
|  | I have not discussed this assessment with the trainee for the following reasons: | | | |
|  | | | | |
|  | |  |  |
| **Electrophysiology Training Supervisor's signature** | |  | **Date (dd/mm/yy)** |

**CLINICAL SUPERVISOR**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | I verify this component of training is complete | | | |
|  | |  |  |
| **Clinical Supervisor's signature** | |  | **Date (dd/mm/yy)** |