



## **GENERAL PRACTITIONER CERTIFICATE**

### **IN CARDIOLOGY – GPCert(Cardio)**

#### **SYLLABUS**

This syllabus is intended to guide the delegate to the key areas they are expected to understand. The emphasis is very much on the approach to different situations – appropriate triage, basic and advanced life support, use of appropriate diagnostic procedures and a rational approach to determining the required intervention.

The veterinarian will be expected to have knowledge of common disorders and an appreciation of resource material from where further research can be undertaken into more unusual conditions. Suitable reading lists and resource material will be provided, both in this Handbook, and by individual tutors during the course.

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#### **The clinical approach to the cardiac patient**

Clinical signs associated with cardiac disorders

The cardiac examination; history and patient examination

Thoracic auscultation

Chest percussion techniques

Differentiating cardiac from respiratory disease

#### **The cardiovascular system**

Cardiovascular anatomy – normal anatomy (gross, tissue, cellular and intracellular)

Cardiovascular physiology; nervous, endocrine, paracrine and automaticity

Embryological processes leading to congenital abnormalities

Action potential

Cardiovascular functions

### **Electrocardiography and thoracic radiology**

Principles of electrocardiography

ECG acquisition and analysis

Common ECG abnormalities

Anti-arrhythmic and pacemaker therapy

Techniques for obtaining diagnostic thoracic radiographs

Common radiographic abnormalities of the thorax

Differentiating heart disease and heart failure

### **Echocardiography**

Optimising the ultrasound scan – use of transducers, frequency, gain

B-mode, M-mode and Doppler

Common echocardiographic views; right parasternal long axis, short axis, fish mouth

Common measurements; LA:Ao in short axis at the heart base, fractional shortening

Evaluation of heart valves

### **Cardiovascular pathophysiology and therapy**

Mechanisms of cardiovascular abnormalities and their translation into clinical signs

Haemodynamic features of heart failure

Neuro-endocrine cascade of heart failure – sympathetic nervous system and the rennin-angiotensin-aldosterone system

Principles of cardiovascular therapy including pharmacokinetics and pharmacodynamics

### **Endocardial and pericardial disease**

Endocardiosis

Endocarditis

Pericarditis

Idiopathic myocardial effusions

Malignant pericardial effusions

### **Myocardial disease**

Cardiomyopathy in dogs

Cardiomyopathy in cats

Myocarditis

### **Congenital abnormalities**

Patent ductus arteriosus

Pulmonic and aortic stenosis

Ventricular and atrial septal defects

Tetralogy of fallot

AV valve dysplasia

Interventional cardiology techniques

### **Approach to the fainting patient**

Differentiation of syncope from seizures; fitting, fainting and falling over

Investigation of syncopal patients; ambulatory ECGs

Clinical investigation techniques

Therapeutics for the fainting patient

### **CPCR, thoracic emergencies, anaesthesia and peri-operative care in cardiac disease**

Cardiac monitoring techniques

Cardiac support

Anaesthesia plans for the cardiac patient

Cardio-pulmonary resuscitation

Use of defibrillators

**Case-discussion and practical techniques**

Problem-oriented approach to cardiac patients

Differential diagnoses lists

Therapeutic interventions

Practical limitations