



**GENERAL PRACTITIONER CERTIFICATE  
IN EXOTIC ANIMAL PRACTICE – GPCert(ExAP)**

**SYLLABUS**

This syllabus is designed as a guideline to the key areas that the delegate will be expected to understand. The emphasis is very much on the approach to different conditions – practical examination techniques, application of appropriate diagnostic procedures and an understanding of the potential complications associated with different body systems, rather than an exhaustive list of potential disorders. The veterinarian will instead 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. An understanding of normal anatomy and physiology, and how these impact on the pathogenesis and treatment of diseases will be expected.

Suitable reading lists and resource material will be provided, both in this Workbook, and by individual tutors during the course.

**The Pharmacy**

- The Medicines Act 1968 (as amended)
- Storage dispensing and labelling
- Misuse of Drugs Act 1971 (as amended)
- Health and Safety at Work Act 1974 (as amended)
- Control of Substances Hazardous to Health Regulations 2002 as amended)

**Therapeutics**

- Pharmacokinetics, potential interactions and adverse effects of common therapeutics agents (including anaesthetics, anti-inflammatories, analgesics, anti-microbials and anti-parasitics)

**Basic biology and natural history for individual species**

- Phylogeny and taxonomy
- Housing and husbandry
- Biology and natural history
- Normal and abnormal behaviour
- Handling and transportation
- Feeding and nutrition
- Anatomy and physiology
- Haematology and biochemistry
- Reproductive physiology and performance, sexing
- Normal parturition and dystocia
- Chemical restraint and anaesthesia
- Ecology, population and conservation biology
- Welfare, ethics and law
- Zoonotic potential

## **Immunisation**

### **Clinical pathology**

- Collection of diagnostic samples, sampling sites, blood volumes
- Normal haematological profiles and changes in disease processes
- Normal biochemical profiles and changes in disease processes
- Lymphodilution
- Diagnostic cytology
- Microbiological investigation of exotic animals
- Bone marrow collection and evaluation
- Faecal examination
- Urine examination

### **Fluid therapy**

- Identification of fluid replacement type
- Calculation of requirements
- Administration techniques

### **Diagnostic Imaging**

- Imaging techniques in mammals, reptiles and avian species including:
  - Radiography and radiology
  - Contrast media techniques
  - Radiology of soft tissues and the skeleton
  - Ultrasonography
  - Echocardiography
- Principles of endoscopy including:
  - Endoscopy of the Respiratory tract
  - Endoscopy of the Gastrointestinal tract
  - Endoscopy of the Reproductive tract

### **Principles of exotic animal anaesthesia**

- Restraint, premedication, induction and maintenance of anaesthesia
- Anaesthetic monitoring
- Emergency techniques during anaesthesia
- Resuscitation

### **Current concepts of exotic animal surgery**

- Basic surgical techniques
- Surgical neutering
- Coelomic surgery
- Microchip implantation
- Oesophagostomy techniques
- Cannulation techniques for fluid administration
- Repair of shell and beak defects
- Use of radiosurgery in exotics

### **Current concepts in exotic animal orthopaedics**

- Common fracture types in different species
- Principles of fracture repair
- Internal and external fixation
- Muscle tendon adhesions

### **Rabbits**

- Diagnosis and treatment of skin diseases including:
  - Ectoparasites, fly strike
  - Bacterial, fungal, viral and neoplastic skin disease
  - Abscesses
  - Sore hocks
- Gastrointestinal physiology and GI diseases including
  - Diagnosis and management of motility disturbances

Mucoid enteropathy  
Dysautonomia  
Causes, diagnosis, treatment and management of diarrhoea  
Dental disease  
Overgrown teeth  
Traumatic injury to teeth  
Treatment of abscesses  
Caries  
Dental surgery  
Common ophthalmological conditions  
Nasolacrimal disease  
Diagnosis and treatment of respiratory tract disease including  
Pasteurellosis  
Other bacterial, mycoplasma and chlamydial causes of respiratory disease  
Viral diseases  
Neoplasia  
Allergic rhinitis and bronchitis  
Musculoskeletal and neurological disease  
Paresis/paralysis  
Vestibular disease  
Seizures  
Heat stroke  
Encephalitozoon cuniculi  
Urogenital disease  
Normal urine and variations in urine colour  
Urinary incontinence  
Urolithiasis / cystitis  
Renal failure  
Endometrial, ovarian and mammary disease  
Testicular disease  
Central nervous diseases  
Infectious diseases to include amongst others:  
Coccidiosis  
Myxomatosis  
Viral haemorrhagic disease

## **Reptiles**

Investigation of the sick reptile  
Diagnosis and treatment of common dermatological conditions including:  
Dysecdysis and scale rot  
Trauma and abscesses  
Erythema, petechiae, ecchymoses and pigment changes  
Overgrown beak and claws  
Shell pyramiding in chelonians  
Ectoparasites, bacterial and fungal disease  
Neoplasia  
Common diseases of the eye including hypertrophic nictitans, cataract,  
Xerophthalmia, arcus lipoides  
Diagnosis and treatment of common gastroenterological disorders including:  
Mouth rot  
Periodontal disease  
Vomiting and regurgitation  
Endoparasitic diseases of the stomach and intestines  
Disease of the large intestine and causes of diarrhoea  
Diagnosis and treatment of liver disease  
Aetiology, diagnosis and treatment of common respiratory tract diseases including:  
Pneumonia – bacterial, fungal and viral  
Upper respiratory tract disease e.g. chelonid herpesvirus  
Lung worms  
Diagnosis and treatment of cardiovascular disease

Diagnosis and treatment of renal disease, gout  
Diagnosis and treatment of reproductive tract disease including  
Egg binding and fractured egg syndrome  
Pre-ovulatory stasis  
Hemipenal and phallus prolapse  
Oviduct prolapse  
Reproductive tract surgery  
Metabolic, nutritional and infectious bone and shell disease  
Tail shedding  
Diseases of the central nervous system – toxic, metabolic, parasitic, bacterial and viral  
Hypocalcaemic collapse  
Post hibernation anorexia and other diseases

### **Avian medicine and surgery**

Diagnosis and treatment of the 'sick bird' to include:  
Gastrointestinal disease  
Proventricular dilation disease/Bornavirus  
Beak and feather disease/circoviral infections  
Respiratory tract conditions to include amongst others  
Chlamydiae  
Aspergillosis  
Diseases of the nares and sinuses  
Diseases of the lower respiratory tract  
Medication in respiratory tract disease  
Urogenital tract disease  
Excessive egg laying  
Reproductive tract surgery  
Egg binding / lethargy / peritonitis  
Orchitis  
Cloacal disease  
Dermatological conditions  
Feather abnormalities / plucking  
Trauma management  
Fracture management

### **Fish**

Disease patterns, environmental factors and fish husbandry  
Examination of the environment (oxygen, ammonia, nitrite, nitrate, pH, temperature etc.)  
Clinical examination  
Chemical restraint and anaesthesia  
Diagnostic imaging  
Clinical pathology  
Post mortem examination  
Methods of medication and therapeutics  
Quarantine and disease prevention  
Principles of fish surgery  
Behavioural changes  
Diagnosis and treatment of common skin diseases  
Ocular disorders  
Respiratory disease  
Internal diseases including oral lesions, abnormal body shape, abdominal enlargement  
Investigation of sudden death

### **Mice**

Diagnosis, treatment and prevention of common skin diseases including:  
Ectoparasites, bacterial, viral, neoplastic and fungal disease  
Gastrointestinal disease including:  
Bacterial causes  
Tyzzer's disease

Protozoa and helminths  
Respiratory tract disease including:  
Mycoplasma pulmonis  
Sendai virus  
Endocrine disease  
CNS Disease  
Infectious diseases:  
Helicobacter spp. infection  
Mouse hepatitis virus

## **Rats**

Diagnosis, treatment and prevention of common skin diseases including:  
Ectoparasites, bacterial, viral and fungal disease, neoplasia (including mammary gland neoplasia)  
Gastrointestinal disease including:  
Bacterial causes  
Protozoa and helminths  
Respiratory tract disease including:  
Mycoplasma pulmonis  
Sialodacryoadenitis virus  
Sendai virus  
Endocrine disease  
CNS and middle ear disease including:  
Spontaneous radiculoneuropathy  
Pituitary neoplasia  
Renal disease

## **Gerbils**

Diagnosis, treatment and prevention of common skin diseases including:  
Ectoparasites, bacterial, viral and fungal disease  
Sebaceous gland dermatitis  
Reproductive and adrenal gland disease affecting the skin  
Behavioural-induced skin disease  
Gastrointestinal disease including:  
Bacterial diseases  
Tyzzer's disease  
Coccidia and tapeworm infection  
Respiratory tract disease including sequelae of otitis media and interna  
Endocrine disease  
Reproductive tract disease including ovarian and uterine tumours  
CNS diseases to include:  
Epilepsy  
Head tilt

## **Hamsters**

Diagnosis, treatment and prevention of common skin diseases including:  
Ectoparasites, bacterial, viral and fungal disease  
Hyperadrenocorticism  
Neoplasia including cutaneous T cell lymphoma  
Gastrointestinal disease including  
Dental disease, impacted pouches, constipation  
Tyzzer's disease, clostridial infection, salmonella  
Wet tail (*Lawsonia intracellulare*) and tapeworm *Rodentolepis (Hymenolepis) nana*  
Respiratory tract disease  
Cardiovascular disease (endocarditis etc)  
Endocrine disease including diabetes mellitus  
Reproductive tract disease including pyometra and pregnancy toxemia  
CNS disease  
Lymphocytic choriomeningitis

## **Guinea pigs**

Diagnosis, treatment and prevention of common skin diseases including:  
Ectoparasites, bacterial, viral and fungal disease  
Pododermatitis, abscesses and wounds  
Endocrine disease affecting the skin  
Nutritional skin disease  
Gastrointestinal disease including  
Malocclusions  
Common causes of diarrhoea such as coccidiosis and salmonella  
Clostridia, Tyzzer's Disease, Salmonellosis  
Respiratory tract disease  
Cervical lymphadenitis  
Endocrine disease  
Diabetes mellitus  
Reproductive tract disease including cystic ovaries, pregnancy toxemia, mastitis  
Cystitis and urolithiasis  
CNS Disease  
Antibiotic toxicity

## **Chinchillas**

Diagnosis, treatment and prevention of common skin diseases including ectoparasites, bacterial, viral and fungal disease  
Dental disease  
Gastrointestinal disease including clostridial infections  
Respiratory tract disease including Bordetella and stress-related disease  
Endocrine disease including diabetes mellitus  
CNS Disease  
Infectious diseases including:  
Listeriosis  
Paratuberculosis

## **Ferrets**

Diagnosis and treatment of skin diseases including:  
Ectoparasites  
Bacterial, fungal, viral and neoplastic skin disease  
Gastrointestinal diseases including:  
Dental disease, dental calculi gingivitis and buccal abscessation  
Gastritis, proliferative bowel disease, viral enteritis  
Diagnosis and management of diarrhoea  
Insulinoma  
Reproductive disease including persistent oestrus and hyperoestrogenism  
Cardiovascular disease including cardiomyopathy  
Respiratory tract disease including specific infectious and parasitic causes  
Hyperadrenocorticism  
Urolithiasis / cystitis  
Renal failure  
Central nervous diseases  
Infectious disease  
Distemper virus infection  
Tuberculosis  
Aleutian disease  
Human influenza

## **Invertebrates**

Common disorders associated with physical injuries, parasites and inappropriate nutritional regimes

## **Primates**

Diagnosis, treatment and prevention of common skin diseases including:  
Ectoparasites, bacterial, viral and fungal disease, skin neoplasia  
Metabolic / nutritional bone disease

- Gastrointestinal disease
- Dental caries
- Bacterial gastroenteritis
- Gastric dilation
- Diarrhoea including common parasitic causes
- Common cardio-respiratory tract disease
- Encephalomyocarditis
- Musculoskeletal disease
- Arthritis
- Traumatic limb fractures
- Infectious disease:
  - Tuberculosis
  - Pseudotuberculosis
  - Rabies
  - Melioidosis
  - Herpesvirus B
  - Marburg disease
  - Hepatitis
  - Measles
  - Salmonellosis
  - Shigellosis
  - Entamoebiasis
  - Endoparasitism

### **Laboratory animal medicine**

Legislation concerning the care and use of relevant laboratory animals

### **Wildlife medicine and surgery**

Legislation

- Protection of Animals Act 1911
- Abandonment of Animals Act 1960
- Dangerous Wild Animals Act 1976
- Veterinary Surgeons Act 1966
- Wildlife and Countryside Act 1981 as amended
- Welfare of Animals Transport Order 1997 as amended
- Welfare of Animals Act 2006
- Welfare of Animals Act (Scotland) 2006
- Restraint, anaesthesia and trauma management in wild birds and mammals
- Diagnosis and management of common disorders affecting fox, badgers, deer, squirrels, seals, other native mustelids, hedgehog, bats, birds of prey, swans, fish-eating birds and other wild birds
- Rehabilitation overview for British wildlife
- Zoonotic diseases of wildlife in the UK

### **Zoo Animal Medicine**

Modern zoo legislation and management (including Zoo Licensing Act 1981 and Balai regulations 92/65 as subsequently amended)

- Routine health-care management and common disease problems
- Restraint of zoo animals
- Drug delivery systems, immobilisation and anaesthetic regimes