

Postgraduate Certificate

Management of Metabolism and Toxicology Emergencies in Small Animals





Postgraduate Certificate Management of Metabolism and Toxicology Emergencies in Small Animals

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Global University
- » Credits: 12 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/veterinary-medicine/postgraduate-certificate/management-metabolism-toxicology-emergencies-small-animals

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01

Introduction

Metabolic and toxicological emergencies are frequent in veterinary care. Its seriousness often requires the professional to act quickly and very well planned in order to save the patient's life. This complete course will present all the necessary protocols to carry it out effectively. A comprehensive course that will propel you to the highest level of competence through the most effective teaching systems in the online teaching market.





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Acquire the necessary skills to act as an expert in the area of Metabolic and Toxicological Emergencies in Small Animals, with the mastery of the latest techniques and advances in this intervention"

In emergency medicine there is a series of understandings, procedures and techniques which are common in the majority of cases, independent of the specialty or specialties involved in each case.

The most frequent metabolic emergencies in small animal medicine are decompensated diabetic patients and Addisonian crises, the latter being underdiagnosed. In both cases, laboratory tests are fundamental in the diagnosis and control of the patient's evolution.

With regard to toxicological emergencies, a review is made of the most common emergencies in emergency departments, including pesticides, drugs for human and/or veterinary use, plants, insects and ophidian bites, among others.

In the patient with a toxicological emergency, a correct anamnesis is essential, as well as a diligent initial care based on the data obtained from the anamnesis and general examination, which may lead to the performance of gastric lavage or bathing or washing of the patient's body surface in order to reduce the absorption of the toxins involved while the clinician can stabilize the patient and perform the appropriate tests to determine the origin of the poisoning, the severity of the picture and the most appropriate treatment.

Thus, the care of a patient with metabolic and/or toxicological emergencies will be addressed: arrival at the emergency department, initial stabilization, as well as anamnesis, examination, complementary tests and medical treatment.

In short, we offer you a complete tour of all the areas of knowledge you need to provide quality emergency care.

This **Postgraduate Certificate in Management of Metabolism and Toxicological Emergencies in Small Animals** contains the most complete and up-to-date educational program on the market. The most important features include:

- ◆ Latest technology in online teaching software
- ◆ Highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ◆ Practical cases presented by practising experts
- ◆ State-of-the-art interactive video systems
- ◆ Teaching supported by telepractice
- ◆ Continuous updating and recycling systems
- ◆ Self-regulating learning: full compatibility with other occupations
- ◆ Practical exercises for self-evaluation and learning verification
- ◆ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ◆ Communication with the teacher and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection
- ◆ Supplementary documentation databases are permanently available, even after the course



Get a complete training in all aspects of intervention in Hematologic and Oncologic Emergencies through this highly effective training course"

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Get a complete training in all aspects of intervention in Metabolic and Toxicological Emergencies through this highly effective training course"

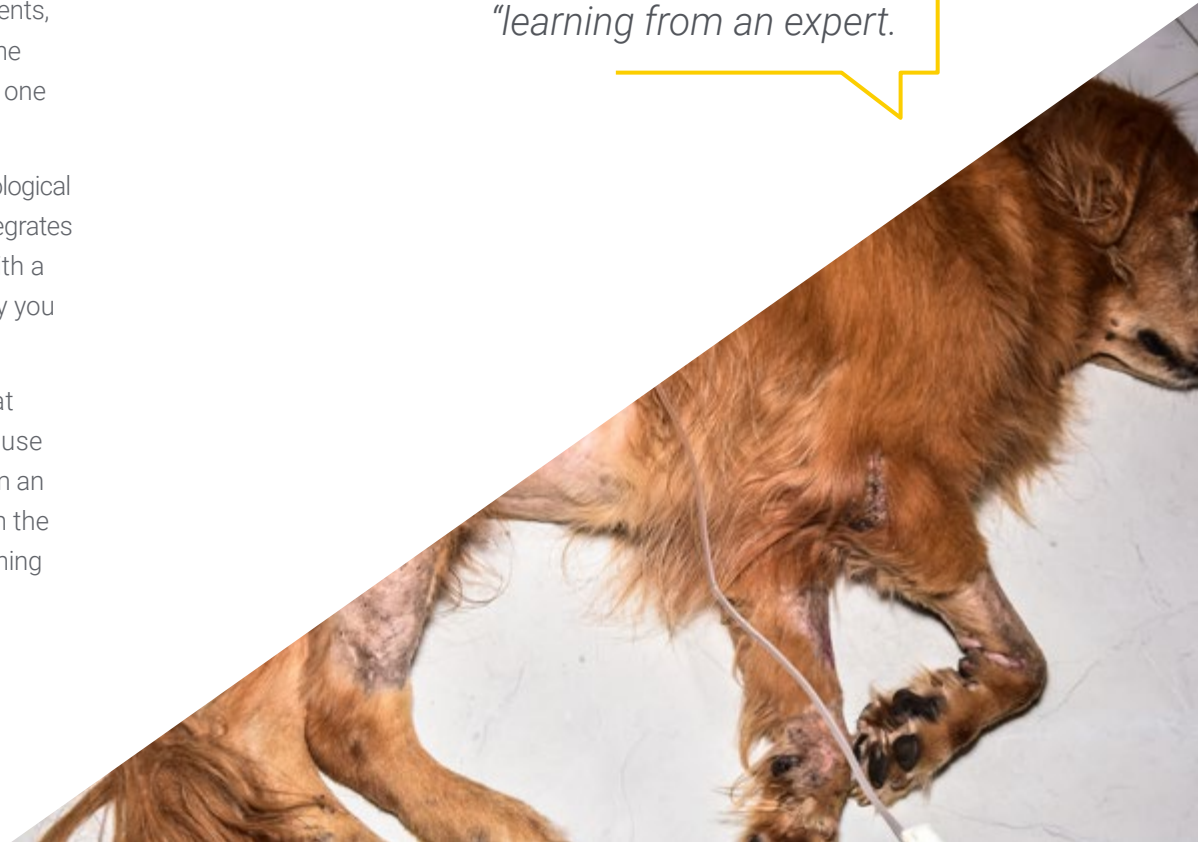
Our teaching staff is made up of professionals from different fields related to this specialty. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but, above all, will put the practical knowledge derived from their own experience at the service of the course: one of the differential qualities of this course.

This mastery of the subject matter is complemented by the effectiveness of the methodological design of this course. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

A high intensity course that will take you through different teaching approaches to allow you to learn in a dynamic and effective way.

*Our innovative telepractice concept will provide you with faster integration and a much more realistic view of the content:
"learning from an expert."*



02 Objectives

This Course in Metabolism and Toxicology Emergencies in Small Animals compiles the most current knowledge based on the latest scientific research. Our ultimate goal is for the veterinary professional to deal with the emergencies that arise in this area, both in a center dedicated exclusively to emergency medicine and in a general practice where this service is available.





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Our goal is simple: to provide you with the knowledge and skills necessary to increase your competence in veterinary Metabolism and Toxicology emergency care"



General Objectives

- Acquire knowledge and fundamental skills related to the initial attention of the patient and the necessary diagnostic and therapeutic procedures in the most common emergency situations.
- Offer the most up-to-date treatments for a patient with metabolic and/or toxicologic problems, according to the latest research in the field





Specific Objectives

- ◆ Perform the correct triage of patients who arrive at the emergency department
- ◆ Assess, manage and provide primary care to patients in the emergency department
- ◆ Perform and interpret the routine tests in a metabolic and/or toxicology emergency consultation such as a rapid drug test or a glucose curve
- ◆ Perform a differential diagnosis based on the data from the physical examination, laboratory tests and diagnostic imaging tests
- ◆ Apply the most appropriate treatment and therapies in the treatment of patients with emergency metabolic and/or toxicology problems
- ◆ Perform precise medical-surgical techniques to stabilize patients with metabolic and toxicology emergency problems, such as gastric lavage or the use of devices for continuous glucose measurement

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A path to achieve training and professional growth that will propel you towards a greater level of competitiveness in the employment market”

03

Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.



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*Leading professionals in the field
have come together to teach you the
latest advances in the Management
of Metabolic and Toxicological
Emergencies in Small Animals"*

Management



Dr. Quintana Diez, Germán

- PhD in Veterinary Medicine from the USC
- Degree in Veterinary Medicine from the USC
- Coordinator of the Dermatology and Behavioral Medicine Services at the Polyclinic A Marosa Veterinary Center
- Master's Degree in Small and Exotic Animals from UCM
- Master's Degree in Clinical Etiology and Animal Welfare from UCM
- Specialist Degree in Medical Genetics and Genomics from UCAM
- Member of the European Society of Veterinary Dermatology
- Member of the European Society of Clinical Veterinary Ethology
- Member of the Spanish Association of Veterinarians of Pet Animals and member of the AVEPA internal medicine, dermatology and clinical etiology study groups

Professors

Beceiro Hermida, Óscar

- ♦ Head of Kavuré Veterinary Hospital
- ♦ Degree and Advanced Study Diploma in Veterinary Medicine from the USC
- ♦ Master's Degree in Animal Behavior and welfare from UZ
- ♦ Postgraduate Degree in Behavioral Medicine and Animal Welfare from Improve Iberica
- ♦ General Practitioner Certificate in Animal Behavior from the European School of Veterinary Postgraduate Studies
- ♦ Multi-species Behavior Modification Technician from the Bocalán Foundation- The Dog Trainers Factory

Pateiro Moure, Ariadna

- ♦ Degree in Veterinary Medicine from the USC with Special Focus in Internal Medicine, specifically Feline Medicine
- ♦ Master's Degree in Feline Medicine from Improve International
- ♦ General Practitioner Certificate in Feline Medicine from the European School of Veterinary Postgraduate Studies
- ♦ Expert in Care Activity in the Veterinary Hospital
- ♦ Member of AVEPA and of AVEPA's study group in Feline Medicine (GEMFE)
- ♦ Has spent periods of time in various centers: San Vicente Veterinary Hospital, Saudevet Veterinary Clinic, Feline Clinic of Barcelona, Nacho Menes Veterinary Hospital and AMUS Wildlife Hospital, Abros Veterinary Hospital and Rof Codina University Veterinary Hospital among others

Rolle Mendaña, Diego

- ♦ Clinical Veterinarian in the Villalba Veterinary Clinic
- ♦ Degree in Veterinary Medicine from the USC
- ♦ Junior Researcher in UC Davis Veterinary Medicine Teaching & Research Center
- ♦ Has spent periods of time in various centers: Polyclinic A Marosa Veterinary Center, Tomás Bustamante Veterinary Hospital or Gecko Veterinary Clinic



An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training: a unique opportunity not to be missed”

04

Structure and Content

The development of this training has been carried out according to the criteria of effectiveness that we offer you. Through a complete and detailed syllabus you will cover all the essential subject areas, gradually acquiring the necessary skills to put the necessary knowledge into practice. A very well-developed learning structure that will allow you to learn in a continuous, efficient way and which is tailored to your needs.





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This Postgraduate Certificate in Management of Metabolism and Toxicology Emergencies in Small Animals contains the most complete and up-to-date scientific program on the market"

Module 1. Introduction to Emergency Medicine in Small Animals

- 1.1. Introduction to Emergency Medicine in Small Animals
 - 1.1.1. Triage and Initial Assessment
 - 1.1.1.1. Remote Triage
 - 1.1.1.2. On-site Triage
 - 1.1.2. Initial Assessment
 - 1.1.2.1. Primary Assessment
 - 1.1.2.2. Secondary Assessment
 - 1.1.3. Primary Care and Management of Emergency Patients
 - 1.1.4. Management of a Difficult Canine Patient
 - 1.1.5. Management of a Difficult Feline Patient
 - 1.1.6. Anesthesia and Analgesia in Emergency Patients
 - 1.1.6.1. Anesthesia in Patients with:
 - 1.1.6.1.1. Respiratory Problems
 - 1.1.6.1.2. Cardiovascular Problems
 - 1.1.6.1.3. Gastrointestinal Problems
 - 1.1.6.1.4. Neurological alterations
 - 1.1.6.1.5. Behavioral Problems
 - 1.1.6.1.6. Others
 - 1.1.6.2. Analgesia in Emergency Patients
 - 1.1.6.2.1. Pain Assessment
 - 1.1.6.2.2. Pain Treatment
 - 1.1.7. Pharmacology in Emergency Patients
 - 1.1.7.1. Fluid Therapy
 - 1.1.7.2. Antibiotherapy
 - 1.1.7.3. Constant Rate Infusion
 - 1.1.8. Enteral Nutrition
 - 1.1.8.1. Nasogastric Catheterization
 - 1.1.8.2. Gastroesophageal Catheterization
 - 1.1.9. Intensive Care Unit (ICU)
 - 1.1.9.1. ICU
 - 1.1.9.2. Patient Monitoring



- 1.1.10. Diagnostic Imaging
 - 1.1.10.1. Chest X-ray
 - 1.1.10.2. Chest Ultrasound
 - 1.1.10.3. Abdomen Radiology
 - 1.1.10.4. Abdomen Ultrasound

Module 2. Metabolic and Toxicological Emergencies

- 2.1. Metabolic and Toxicological Emergencies
 - 2.1.1. Clinical Management of a Patient with Metabolic Emergencies
 - 2.1.1.1. Initial Management
 - 2.1.1.2. Complementary Diagnostic Procedures
 - 2.1.2. Diabetic Patients
 - 2.1.2.1. Diabetic Ketoacidosis
 - 2.1.2.1.1. Etiopathogenesis
 - 2.1.2.1.2. Clinical Signs
 - 2.1.2.1.3. Diagnosis
 - 2.1.2.1.4. Treatment
 - 2.1.2.2. Hyperglycemic Hyperosmolar Syndrome
 - 2.1.2.2.1. Etiopathogenesis
 - 2.1.2.2.2. Clinical Signs
 - 2.1.2.2.3. Diagnosis
 - 2.1.2.2.4. Treatment
 - 2.1.3. Addisonian Crisis (Hypoadrenocorticism)
 - 2.1.3.1. Etiopathogenesis
 - 2.1.3.2. Clinical Signs
 - 2.1.3.3. Diagnosis
 - 2.1.3.4. Treatment
 - 2.1.4. Other Metabolic Emergencies
 - 2.1.4.1. Hypoglycemia
 - 2.1.4.2. Hypercalcemia
 - 2.1.4.3. Hypothyroid Coma

- 2.1.5. Clinical Management of a Patient with Toxicological Emergencies
 - 2.1.5.1. Initial Management
 - 2.1.5.2. Complementary Diagnostic Procedures
 - 2.1.5.3. Immediate Treatment
- 2.1.6. Most Common Intoxications (I)
 - 2.1.6.1. Pesticides
 - 2.1.6.2. Rodenticides
- 2.1.7. Most Common Intoxications (II)
 - 2.1.7.1. Medication
 - 2.1.7.2. Food
- 2.1.8. Most Common Intoxications (III)
 - 2.1.8.1. Cleaning and Cosmetic Products
 - 2.1.8.2. Illegal Recreational Drugs
- 2.1.9. Most Common Intoxications (IV)
 - 2.1.9.1. Heavy Metals
 - 2.1.9.2. Fungi
- 2.1.10. Most Common Intoxications (V)
 - 2.1.10.1. Contact with Other Animals
 - 2.1.10.2. Plants



A comprehensive teaching program, structured in well-developed teaching units, oriented towards learning that is compatible with your personal and professional life"

05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the actual conditions in a veterinarian's professional practice.

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Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. The feeling that the effort invested is effective becomes a very important motivation for veterinarians, which translates into a greater interest in learning and an increase in the time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.



Veterinarians will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology more than 65,000 veterinarians have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. Our teaching method is developed in a highly demanding environment, where the students have a high socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

Certificate

The Postgraduate Certificate in Management of Metabolism and Toxicological Emergencies in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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Include in your training a Course in Management of Metabolism and Toxicology Emergencies in Small Animals: a highly qualified added value for any professional in this area"

This program will allow you to obtain your **Postgraduate Certificate in Management of Metabolism and Toxicology Emergencies in Small Animals** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Management of Metabolism and Toxicology Emergencies in Small Animals**

Modality: **online**

Duration: **12 weeks**

Accreditation: **12 ECTS**





Postgraduate Certificate
Management of Metabolism
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