

Reference Number	C-VA.1
Module Title	Small Animal Anaesthesia and Analgesia
Category and Value	C – 10 credits
Study Hours	100

Introduction

This module has been designed to help veterinary surgeons in general practice. In particular, the aim of the module is to consolidate your clinical knowledge and skills and to develop an in-depth understanding of the physiology, pharmacology and equipment. This will help you to face the most common perioperative challenges in relation to anaesthesia

You should fulfil the following criteria to be enrolled:

- a) Having completed module B-SAP.1
- b) It is your responsibility to ensure that you have access to sufficient cases to produce adequate material for the module
- c) Coverage of this module may be integrated with others, particularly other B and C modules. All candidates will normally have completed A-FAVP.1 Foundations of Advanced Veterinary Practice module, and at least one of the practice B modules, before undertaking a C module, although you can choose to work through modules in a different order if you wish

For a designated Certificate in Advanced Veterinary Practice (Veterinary Anaesthesia) you must complete this module, one further C-VA/C-LAS.1 module, two 'free choice' 10 credit modules and an RCVS synoptic assessment.

Aims

The aim of the module is to enable the candidate to extend and consolidate clinical knowledge and skills gained at undergraduate level and to develop an in-depth understanding of the application of that knowledge in a practice environment in relation to anaesthesia and analgesia.

Learning Outcomes

By the end of this module successful candidates should be able to:

1. demonstrate a comprehensive understanding of the fundamental physiological and pharmacological tenets that underpin current knowledge and clinical practice of veterinary anaesthesia;
2. demonstrate in depth knowledge of the theoretical basis and practical skills relating to supportive care of the anaesthetised patient including the preoperative and postoperative periods;

3. demonstrate in depth knowledge and practical application of the instrumentation used in the maintenance and monitoring of anaesthetised patients;
4. demonstrate a critical awareness of the theoretical basis underpinning the practice of pain management in animals;
5. review and constructively criticise current literature in the subject area.

Module Content

This module has been designed to acquire specific knowledge in the main scientific disciplines that are relevant for the safe management of anaesthesia. These are the following:

- **Physiology** including knowledge of
 - the function of peripheral and autonomic nervous system,
 - cardiovascular and respiratory systems and the transport of gases,
 - the control of water, electrolytes, hydrogen ions and buffers in biological systems,
 - hepatic and renal physiology and endocrinology, with reference to the changes in physiology that occur during anaesthesia
- **Pharmacology** including
 - awareness of the clinically relevant actions of the drugs commonly used in small animal sedation, analgesia and local and general anaesthesia, and their pharmacokinetics (distribution, metabolism, elimination).
 - Potential side effects of these drugs and strategies to prevent and/or manage side-effects.
- **Species specific anatomy** (mainly dogs and cats but including an appreciation of exotic animals): CNS, spinal cord and the main nerve trunks blocked in regional analgesic techniques and a knowledge of the anatomy of the thorax, abdomen, head and neck as they relate to anaesthesia
- **Clinical small animal anaesthesia** including pre-operative clinical assessment and stabilisation, sedation, analgesia (including local and regional techniques), premedication, induction, and maintenance of general anaesthesia (using both intravenous and inhalant techniques), monitoring and supportive care
- **Anaesthetic equipment** including an understanding of anaesthetic machines and breathing circuits
- **Patient monitoring** before, during and after the anaesthetic period, including pre-anaesthetic assessment, monitoring indicators of anaesthetic depth, selection and interpretation of patient monitoring devices, and blood gas analysis
- **Knowledge of the pathophysiology** of common diseases and disorders of small animals as they affect anaesthesia, as well as the way anaesthesia may affect pathological processes

Assessment Strategy

Module providers are responsible for deciding on assessment strategies and methods, subject to accreditation by RCVS.