

C-ECC.3 Emergency Care (B)

Credits: 10 (100 hours)

Provider: Veterinary Postgraduate Unit – Institute of Veterinary Science

RCVS Content Covered

At the end of the module, candidates should be able to:

1. Discuss and explain the aetiologies, typical history, physical examination findings, diagnostic algorithm and treatment options for the patient which has acute dysfunction in the gastrointestinal, urinary, reproductive, endocrine, ocular, otic or integumentary systems or organs. Examples of acute dysfunction include, but are not limited to, the following conditions:

- Gastrointestinal, Hepatic and Pancreatic: gastroenteritis of any cause, gastric dilation-volvulus, intestinal foreign bodies, inflammatory bowel disease, gastric decontamination in toxicities, surgical repair of gastrointestinal wounds, rectal prolapse, pyloric stenosis, vomiting, diarrhoea, dental trauma, mandibular fractures, intussusception, megaesophagus, portosystemic shunt, end-stage liver disease, acute hepatitis, hepatic lobectomy, hepatic fracture repair, hepatic encephalopathy, hepatic lipidosis, acute pancreatitis, anorexia of the rabbit
- Urinary: urethral or urinary tract obstruction, urinary tract infection, surgical removal of urinary or cystic calculi, nephrectomy, ethylene glycol toxicity, acute renal failure, decompensated chronic renal failure
- Reproductive: pyometra, dystocia, mismating, paraphimosis
- Endocrine: hyperthyroidism in the cat, hypoadrenocorticism in the dog, diabetic ketoacidosis, hypoglycaemia, insulinoma, diabetes.
- Oculo-Otic: acute vestibular disease, otitis externa and media, aural haematoma, uveitis, glaucoma, corneal abrasions/ ulcers/ lacerations, keratoconjunctivitis sicca, hyphaema, hypopyon
- Integumentary: acute moist dermatitis, ectoparasite infestation, lacerations, thermal burns, chemical burns.

2. Describe the technique for performing common emergency procedures, such as those listed below. This list is not intended to be restrictive or proscriptive.

- Gastrointestinal / Hepatic:
 - Place a nasogastric tube and administer enteral nutritional support
 - Place an oesophagostomy tube and administer enteral nutrition support
 - Surgical repair and post-operative management of a gastric dilation-volvulus
 - Calculate daily caloric requirements for enteral nutrition
 - Perform a diagnostic peritoneal lavage and interpret the findings
 - Calculate the daily fluid balance for a patient on intravenous fluids
 - Perform medical management of hepatic encephalopathy
- Urinary:

- Treat the hyperkalaemia associated with urethral obstruction in the male cat
- Reproductive:
 - Surgical repair and post-operative care of a (toxic) pyometra
 - Perform a Caesarean section
- Endocrine:
 - Stabilise a patient with diabetic ketoacidosis
- Ocular:
 - Measure intraocular pressure with a TonoPen or a Schiøtz tonometer and treat acute glaucoma
 - Perform a fluorescein stain of the cornea and manage a corneal ulcer
- Integumentary:
 - Manage a degloving injury with successive dressings

Aim of the Module

The aim of this module is to develop a logical, systematic and reasoned approach to the initial assessment and subsequent management of emergency cases commonly seen in practice and to enable the candidate to critically evaluate their own standards of practice and develop strategies for continuous improvement in the future.

Learning Outcomes

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

1. demonstrate a systematic understanding of the presenting pathophysiologic alterations in emergency patients in order to undertake initial assessment, subsequent stabilisation and management;
2. demonstrate a comprehensive understanding of the advanced skills and knowledge in order to manage the common emergency presentations seen in general practice including surgical techniques for diagnosis and therapy;
3. critically evaluate current approaches to emergency patients and plan suitable protocols for optimising outcomes including utilising staff and equipment maximally;
4. critically evaluate the literature in order that evidence based medicine underpins the decision making processes.

Module Structure

The syllabus will be divided into four study units:

Study Unit 1 General Principles

- Initial assessment of emergency patients
- Relevant pathophysiology and the alterations seen in various emergency presentations

- Stabilisation of the critical patient including medical and surgical methods
- Screening techniques and minimum database information
- Diagnostic testing and logical investigations in order to make a diagnosis

Study Unit 2 Gastrointestinal Emergency Presentations

- Approach to patients with critical illness affecting the gastrointestinal system, liver and pancreas.
- Medical and surgical management of acute dysfunctions of the gastrointestinal tract including liver and pancreas

Study Unit 3 Urogenital Emergency Presentations

- Approach to patients with critical illness affecting the urogenital and reproductive systems
- Medical and surgical management of acute dysfunctions of the urogenital and reproductive systems

Study Unit 4 Endocrine and Special Senses Emergencies

- Approach to patients with critical illness affecting the endocrine, otic, ocular and integumentary systems.
- Medical and surgical management of acute dysfunctions of the endocrine, otic, ocular and integumentary systems.

Assessment Strategy

Portfolio of cases (20 case log book), 3 x reflective case reports (1500 words), 1 x short answer question and/or MCQ test and 1 x journal critique/journal club presentation (pass/fail)

PLEASE NOTE: It is your responsibility to ensure that you have access to sufficient appropriate cases where you were the primary decision maker to produce adequate material for the module. This may not be possible with some internship positions. You must also be aware of any limitations of your facilities that may make the accumulation of appropriate cases difficult or impossible.