

Abstract for CE program

Program Title: Spontaneous Ventilation Under Anesthesia and Monitoring Techniques

Program Description: This course will review basic respiratory physiology and how anesthesia affects ventilation in dogs and cats. Common terminology pertaining to ventilation will be defined with an emphasis on hypoventilation and atelectasis and how that affects the patients and their anesthetic plane. Each commonly used anesthetic drug will be identified as well as their effects on ventilation. A comparison and contrast of the pulse oximeter and the capnograph will be discussed and a brief introduction to capnography and capnogram waves will be presented. Attendees do not have to have current knowledge or experience with capnography to appreciate this lecture.

Program Agenda:

- 1) Review of respiratory physiology
- 2) Definitions of commonly used respiratory terminology
 - a. Terms ending in -pnea
- 3) Discussion and causes of atelectasis
- 4) Causes of hypo and hyperventilation and how to address these conditions
- 5) Monitoring techniques for ventilation
 - a. Pulse oximetry and capnography
- 6) Commonly used anesthetic drugs and their affects on ventilation
- 7) Capnometry
 - a. Brief introduction
 - b. How capnography can tell you more about how well your patient is ventilating
 - c. Waveforms, normal and abnormal

Learning Objectives:

- 1) Attendees will get a refresher on respiratory system physiology and a review of commonly used terms to describe abnormalities in respiration and ventilation. The meaning and the causes of atelectasis will be defined as well as how this will affect the patient and their plane of anesthesia.
- 2) Attendees will be able to support an otherwise healthy patient with properly implemented assisted ventilation and have an understanding that hypoventilation can be a common complication that arises due to the nature of anesthesia.
- 3) Attendees will be able to understand the difference between the information provided by the pulse oximeter and the capnograph. They will be able to identify a normal waveform and interpret abnormal waveforms.