

Lecture summaries

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Cardiovascular Physiology

This lecture provides a focused overview of cardiovascular physiology in dogs and cats, beginning with the anatomy of the heart and its primary functions.

Core physiological principles are then explored to explain the development of cardiac disease and the body's compensatory responses to cardiovascular dysfunction. Common cardiac diseases in dogs and cats, including dilated cardiomyopathy, hypertrophic cardiomyopathy, myxomatous mitral valve disease, arrhythmias, and pericardial disease, will be discussed alongside associated clinical signs.

The session will cover common cardiac emergencies, initial patient stabilisation, and commonly utilised diagnostic tools and therapies.

This presentation is designed to equip veterinary nurses with the underpinning knowledge required to recognise cardiac disease, understand treatment decisions, and deliver swift and effective nursing care to improve outcomes for cardiac patients.

Learning goals

1. Normal cardiovascular physiology
2. Perfusion
3. Development of acquired cardiac disease and clinical signs
4. Emergency cardiac presentations
5. Common diagnostics and therapies

Respiratory System Recap

Respiratory distress is a common emergency presentation and one of the most challenging to manage. These patients often require immediate intervention but frequently are unable to tolerate handling and stress due to the potential of rapid decompensation and cardiopulmonary arrest. This case-based lecture explores the pathophysiology of respiratory conditions in dogs and cats, supporting veterinary nurses and technicians in delivering high-quality care.

After reviewing normal respiratory physiology, the session will focus on the pathophysiology of upper and lower airway disease, pulmonary parenchymal disease, pleural space disease, chest wall abnormalities, neuromuscular disease, and respiratory look-alikes.

Developing a thorough understanding of the underlying disease processes enhances clinical decision-making. Following this presentation, delegates will be equipped to recognise clinical signs, anticipate complications, and assist in the stabilisation, monitoring and ongoing care of dyspnoeic patients.

Learning goals

1. Normal respiratory Physiology
2. Pathophysiologies of respiratory disease
3. Methods of providing supplemental oxygen
4. Clinical signs and breathing patterns
5. Common treatments

Fluid Therapy

This lecture provides a practical overview of fluid therapy - one of the most commonly prescribed treatments in veterinary practice. The session begins with an overview of the physiology and distribution of body fluids. Indications for fluid therapy and common causes of fluid imbalance will then be explored. Delegates will learn key principles of fluid resuscitation, assessment of hydration status, and estimation of fluid deficits in dogs and cats.

The types of fluids available for clinical use will be reviewed, with discussion of their appropriate indications and contraindications. Together, we will develop a fluid therapy plan, including calculation of fluid deficits, maintenance requirements, and ongoing losses. Finally, key patient monitoring parameters will be discussed to support ongoing reassessment of fluid balance and help prevent fluid overload.

This presentation is designed to equip veterinary nurses with the knowledge required to implement, monitor, and safeguard patients receiving fluid therapy safely and effectively in clinical practice.

Learning goals

1. Fluid compartments in the body
2. Perfusion and the role of fluid
3. Bolus fluid therapy
4. Replacement fluid therapy
5. Fluid overload

Sepsis

Systemic Inflammatory Response Syndrome (SIRS), Sepsis, Multiple Organ Dysfunction Syndrome (MODS), and Septic Shock are among the most challenging and formidable conditions faced by clinicians and veterinary nurses. These conditions are associated with high morbidity and mortality rates, and require prompt recognition, treatment, monitoring and intensive care.

In this presentation we will unpack these diseases, identify their distinctions from one another, and discuss their clinical manifestations in dogs and cats. Delegates will gain insights into strategies and treatments and the essential nursing care required to achieve successful patient outcomes.

Through practical, relatable, and clinically relevant discussions, this session will empower veterinary nurses with the knowledge and skills needed to effectively manage these critical conditions and provide nursing excellence.

Learning goals

1. Differences between SIRS and Sepsis
2. Diagnostics
3. Common treatments
4. Complications and sequelae
5. Patient monitoring

Beyond clinical practice, unleashing your potential (panel)

This panel discussion focuses on how different veterinary nursing qualifications and opportunities can shape professional development beyond day-to-day clinical work. Nurses with varied educational backgrounds will discuss postgraduate certificates, specialist credentials, educator pathways, contribution to literature and advanced training options, sharing insights into the wide variety of options available to nurses and technicians to expand knowledge and skill set. The session aims to demystify further education, clarify expectations and commitments, and help nurses understand how targeted qualifications can expand responsibility, autonomy, and professional influence within nursing roles. Emphasis will be placed on informed decision-making and realistic planning.

Learning goals

1. Identify a range of postgraduate qualifications, specialist credentials, and non-clinical career pathways available to veterinary nurses and technicians beyond routine clinical practice.
2. Evaluate how different educational and professional development pathways can expand clinical responsibility, autonomy, and influence within veterinary nursing roles.
3. Describe the commitments, expectations, and practical considerations associated with pursuing advanced training, postgraduate education, or alternative professional roles.
4. Apply panel insights to make informed, realistic decisions about personal career planning and targeted professional development aligned with individual goals and circumstances.