

## **Claire Sharp**

### **Steroids in critical illness | *Claire Sharp***

The use of steroids in acute and critical illness is experiencing a resurgence with evidence of benefit in human patients with septic shock, acute respiratory distress syndrome, and community acquired pneumonia. This lecture will review steroid physiology and pathophysiology, including critical illness related corticosteroid insufficiency (CIRCI). Veterinary literature and recent human literature will be reviewed and suggestions made to guide clinical decision making.

### **Anaphylaxis: pathophysiology, diagnosis, and treatment | *Claire Sharp & Corrin Boyd***

Anaphylaxis refers to a life-threatening acute type 1 hypersensitivity reaction that results in multiple organ dysfunction. The pathophysiology of anaphylaxis is complex and shows substantial variation in between species. Diagnosis is sometimes straightforward based on classic dermatological signs but can be challenging when they are absent. Treatment often requires intensive acute support for organ dysfunction. However, prognosis is very good with timely and appropriate recognition and management. This session will discuss the current understanding of the pathophysiology, diagnosis, and treatment of anaphylaxis in small animals.

### **Envenomations | *Claire Sharp & Corrin Boyd***

Envenomation has the potential to cause a rapid and severe constellation of systemic consequences. This session, focusing on snake envenomation, highlights these consequences from both the perspective of diagnostic and therapeutic considerations. Several case examples will be presented to demonstrate typical clinical presentations and their management. Recent developments in the management of envenomation, including modern antivenoms and small molecule inhibitors of venom components, will be highlighted.

### **Heatstroke | *Claire Sharp***

Heatstroke in dogs remains as deadly as ever, and may be increasing in prevalence with global climate change. This lecture will review our current understanding of the pathophysiology of heatstroke, new prognostic biomarkers, and approaches to treatment. Recent research that improves our understanding of heatstroke in dogs will also be reviewed.

### **The gastrointestinal tract and critical illness | *Claire Sharp***

Gastrointestinal (GI) tract dysfunction can be considered an organ dysfunction in dogs and cats with systemic inflammation and sepsis. This may result in dysmotility, feeding intolerance, barrier dysfunction, and malnutrition. This

lecture will discuss clinical recognition of GI tract dysfunction and discuss a holistic treatment approach including treatment of the underlying disease, identifying and reducing risk factors for dysmotility, early mobilisation, appropriate IV fluid therapy, and early enteral nutrition. Other components of treatment include the appropriate use of antiemetics, prokinetics, antacids, gastroprotectants, antibiotics, and probiotics.

**Expanding options for transfusions: Infusion ready plasma and stored whole blood | *Claire Sharp***

Blood product transfusions are indicated for a variety of situations including whole blood loss, anemia, and coagulopathy. Veterinary blood banking is constantly evolving, and we are fortunate to have a plethora of recent transfusion medicine and blood banking research to inform that evolution. In this lecture, new data will be reviewed that provides insights into the role of novel transfusion products, and broadens our understanding of the benefits of existing blood products. We will focus on two novel transfusion products that I believe are practice changing; infusion ready plasma, and stored whole blood (SWB).