

CVMA Ski CE Program Descriptions

A Focus on Trauma Resuscitation from the Trenches

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1. XABCDE: How to Rapidly Identify Those Who May Die (and then save them)

In the fast-paced world of emergency and critical care, rapid and systematic trauma assessment is essential for optimizing patient outcomes. This lecture will delve into the **XABCDE** approach—an advanced trauma life support framework adapted for veterinary medicine.

From **X** (exsanguination) to **A** (airway), **B** (breathing), **C** (circulation), **D** (disability, neurologic abnormalities), and **E** (exposure/environment), this structured method provides a step-by-step guide for efficiently identifying and managing life-threatening injuries in trauma patients. We'll discuss practical applications, common pitfalls, and real-world case examples to enhance your confidence in high-stakes trauma situations.

Whether you're an emergency clinician, surgeon, or general practitioner looking to refine your trauma skills, this session will equip you with the tools needed to **act fast, prioritize effectively, and save lives**.

2. Updates on Canine Blood Types and How Dal Changes Transfusion Medicine (25 min)

Stay at the forefront of canine transfusion medicine by joining us for a groundbreaking session on the discovery and clinical significance of the Dal blood type. While most dogs are Dal-positive, the identification and management of Dal-negative patients present a new challenge for veterinarians. These dogs are at risk of transfusion reactions after receiving Dal positive transfusions, making the need for compatible donors critical.

In this session, you will:

- Uncover the latest updates on canine blood types and how the discovery of Dal has changed transfusion protocols
- Learn strategies for diagnosing Dal-negative anemic patients and identifying compatible blood donors
- Explore case studies that highlight the complexities and challenges in managing Dal-negative transfusions
- Gain practical insights into improving patient outcomes by refining your transfusion practices with the latest evidence

Whether you're a general practitioner or an emergency specialist, this lecture offers actionable takeaways to ensure safer and more effective transfusions for your canine patients.

3. Updates On Feline Blood Types and How FEA and Mik Change Transfusion Medicine (25 min)

Join us for an exciting and informative session that explores the evolution of feline transfusion medicine with the discovery of new blood types. While AB compatibility has long been a cornerstone of feline transfusions, the identification of feline erythrocyte antigen (FEA 1-5) and Mik blood types is transforming how we approach blood typing and transfusion safety.

In this lecture, attendees will:

- Understand the critical role of pre-existing alloantibodies in feline blood transfusions and how these impact clinical outcomes
- Learn the latest protocols for accurate blood typing and the importance of crossmatching in light of these newly discovered antigens
- Explore real-world case studies and gain actionable strategies for reducing transfusion reactions and ensuring safer outcomes for feline patients

As crossmatching becomes indispensable for transfusion safety, this session will provide practical, evidence-based insights to help you refine your transfusion protocols and improve patient outcomes in your practice.

4. Plasma as a Fluid (50 min)

Plasma is much more than just a transfusion product—it's a vital resuscitation fluid that plays a key role in stabilizing critical patients in emergency and critical care settings. In this engaging session, you'll explore the versatile uses of plasma in veterinary medicine, from treating trauma-induced bleeding to managing coagulopathies and restoring the glycocalyx.

Key takeaways include:

- How to effectively utilize plasma to stabilize bleeding trauma patients and restore essential proteins and clotting factors
- The indications for plasma transfusion in various clinical scenarios, including its role in optimizing outcomes for critical patients
- Practical guidelines on storing plasma (frozen or liquid), safe administration, and avoiding common complications

Through real-world case discussions and evidence-based insights, attendees will gain actionable knowledge that can be immediately applied in practice. Whether you are managing a complex coagulopathy or resuscitating a bleeding patient, this session will provide you with the tools and confidence to use plasma transfusion effectively.

4. The Problem with Exsanguinating Hemorrhage (50 min)

Exsanguinating hemorrhage triggers systemic damage that extends beyond hypovolemia, leading to what is now recognized as "blood failure." In this session, attendees will explore the concept of blood failure, characterized by endothelial dysfunction, coagulopathy, and platelet dysfunction, as a direct consequence of severe hemorrhagic shock. Participants will gain insight into the pathophysiology that unfolds following trauma and how this understanding shapes effective resuscitation strategies. By the end of the lecture, learners will be equipped with knowledge to better manage trauma patients and mitigate the broader effects of exsanguinating hemorrhage.

5. Hemostatic Resuscitation (50 min)

In this session, we will delve into the essential steps of hemostatic resuscitation for dogs and cats experiencing severe hemorrhagic shock. Blood products play a critical role in both restoring circulating volume and achieving normal hemostasis. Attendees will learn why early administration of blood products is key and explore a holistic approach that includes controlling external hemorrhage, managing hypothermia, and the potential use of antifibrinolytic drugs. By the end of the session, participants will have a clear understanding of how to implement these strategies to improve outcomes in bleeding trauma patients.

6. Auto-Transfusion: Life Saving or Last Resort? (50 min)

Severe hemorrhage in trauma patients presents a critical challenge in emergency and critical care. **Auto-transfusion**—the collection and reinfusion of a patient's own shed blood—offers a rapid, cost-effective option for resuscitation when donor blood is unavailable. But is it always the right choice?

This lecture will explore the **pros and cons of auto-transfusion**, including its ability to provide immediate volume resuscitation without the need for crossmatching, as well as its limitations, such as the absence of functional coagulation factors and platelets. Additionally, we'll discuss the **risk of contamination**, particularly in cases of traumatic gastrointestinal perforation as can happen with dog bite traumas.

Attendees will gain practical insights into **techniques for safe blood collection and transfusion**, including best practices for minimizing complications. Through case examples and evidence-based recommendations, this session will equip veterinarians with the knowledge to make informed decisions when managing life-threatening hemorrhage in their patients.

7. Cryoprecipitate In the Trauma Patient (25min)

In trauma patients, fibrinogen is rapidly consumed, leaving them unable to form strong clots to control hemorrhage. Cryoprecipitate, a concentrated and low-volume source of fibrinogen, plays a critical role in restoring clotting capacity. This session will delve into the latest research on the use of cryoprecipitate in both human and veterinary trauma cases. Learners will discover how to prepare cryoprecipitate from frozen plasma, store it safely, and understand its clinical application. Attendees will also gain insights into relevant findings from both veterinary and human literature to enhance their understanding of this essential resuscitation product.

8. Cryopoor Plasma: What To Do With Leftovers (25 min)

Cryopoor plasma, a byproduct of cryoprecipitate production, serves as a vital source of natural colloids, particularly beneficial for patients with hypercoagulable conditions. It provides a safe alternative for volume replacement, especially in cases like hepatic failure or protein-losing nephropathy, where the need for colloidal support is critical but must avoid exacerbating clot formation. Cryopoor plasma effectively restores natural colloids in hypoalbuminemic patients while supplying essential factors like antithrombin, which is frequently depleted and contributes to a hypercoagulable state. This session will equip learners with practical knowledge on how to safely produce, store, and administer cryopoor plasma, optimizing its use in clinical practice for improving patient outcomes.

9. Resuscitating A Hypoalbuminemic Mess (50 min)

Hypoalbuminemic, hypovolemic dogs present a unique challenge in emergency care due to their intolerance to crystalloids, making fluid resuscitation complex. In this lecture, participants will delve into the underlying pathophysiology of hypoalbuminemia, explore the common diseases that contribute to this condition, and analyze the clinical consequences of protein loss. Attendees will gain a comprehensive understanding of plasma and albumin-based products, discussing the benefits, risks, and clinical applications of each option. This session will equip clinicians with practical strategies to navigate these critical cases and optimize patient outcomes, ensuring a safer and more effective approach to resuscitation.

10. Harnessing the Power of Point of Care Diagnostics (50m)

Coming soon!

11. Intravascular Volume Assessment using POCUS (50m)

Coming soon!

12. Rapid Response to Respiratory Distress (50 minutes)

Coming soon!

13. New Approaches to Treating Dyspnea and Stabilizing Brachycephalic Crises (50m)

Coming soon!