Differentiating Antemortem and Postmortem Fractures Using Magnetic Resonance Imaging
Presenter: Dr. Garrett Oetelaar, 3rd Yr Resident, Diagnostic Imaging

Intraosseous T1-weighted (T1W) and short-tau inversion recovery (STIR) magnetic resonance imaging (MRI) signal intensity changes may be able to differentiate antemortem and postmortem fractures in human forensics. The primary objective of the current study was to determine whether such signal intensity changes in bone and soft tissue are in fact helpful in identifying antemortem fractures using a porcine fracture model. Intraosseous signal intensity changes in T1W and T2-weighted (T2W) sequences yielded a specificity of 100% for the detection of antemortem fractures. Additionally, when both intraosseous and soft tissue signal intensity changes were considered together, the T1W sequence yielded the best balance of sensitivity and specificity for antemortem fracture detection at 100% and 83% respectively. MRI is useful in differentiating antemortem and postmortem fractures and should be used in forensic analyses of fractures.

Assessment of Physical Incompatibility of Injectable Enrofloxacin with Commonly Used Intravenous Fluids and Drugs During Simulated Y-port Administration
Presenter: Dr. Ana Aghili, 2nd Yr Resident, Emergency/Critical Care

The objective of this study was to evaluate the physical compatibility of injectable LA and SA formulations of enrofloxacin with commonly used intravenous fluids (0.9% NaCl, Plasmalyte, LRS, 6% hydroxyethylstarch 130/0.4 [HES]) and with drugs commonly infused intravenously over time in a SA veterinary intensive care unit (ampicillin/sulbactam and metoclopramide). We hypothesized that enrofloxacin would be physically incompatible with plasmalyte, LRS, ampicillin/sulbactam and metoclopramide and physically compatible with 0.9% NaCl and HES.

Comparison of a Commercial Immunochromatographic Strip Crossmatch Kit and Standard Laboratory Crossmatch Methods for Blood Transfusion Compatibility in Dogs
Presenter: Dr. Rebecca Zaremba, 3rd Yr Resident, Emergency/Critical Care

This seminar will be an overview of a Purdue based research project of different crossmatch techniques which came about to determine potential discrepancies in our in-house crossmatch testing as we were producing higher incompatibility rates then were published at other facilities. The agreement between the 3 crossmatch test methods utilized will be presented for total population as well as a sub-population of dogs with IMHA. The prevalence of transfusion reactions and clinical benefit for each of the crossmatch tests will also be discussed in order to help clinicians make the most practical decisions in transfuse medicine moving forward.