

Lead Poisoning

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One Health Framework Component:

Environmental Health: External Exposures

Student Audience:

Toxicology, Veterinary, Physician

Synopsis:

Based on an actual case that I saw while on senior rotations in vet school, this case study will focus on the collaborative roles that veterinarians and physicians play in protecting One Health. A poultry veterinarian for the state diagnostic lab receives 4 dead pigeons for necropsy and further work up. The pigeons belong to the client's 10-year-old daughter who takes care of them and races them. She keeps them in an old shed on the property. The autopsy is unremarkable, but toxicology reports show incredibly high lead levels. After testing the shed it is found to have lead paint. Recommendations by veterinarians and physicians will be covered (testing of family members, guidance on decontamination etc.). There will also be discussion of other examples of animals as sentinels for human health. This case will be compared to the 2010 outbreak of lead poisoning in Northern Nigeria where the death of waterfowl led officials to determine the cause of illness and death of hundreds of children. This case study analyzes and tests One Health skills and competencies as they are needed on microscopic (a single family and four pigeons) and macroscopic (a quarter of the children in villages in Northern Nigeria) levels.