

Equine Farm Manager Dies From Accidental Overdose of Xylazine

Incident Number: 03KY134



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Kentucky Fatality Assessment and Control Evaluation (FACE) Program

Incident Number: 03KY134

Incident Date: October 6, 2003

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**Subject: Equine Farm Manager Dies from Accidental
Overdose of Xylazine**

Summary

On October 6, 2003, a 49-year-old male equine farm manager accidentally died after injecting himself with an unknown quantity of Sedazine (xylazine), a sedative commonly used to sedate horses. After visiting a barn's storage area at approximately 8:45 am, the farm manager went to his house located on the farm and apparently tried to ease his pain by injecting himself with xylazine. At approximately 9:45 am, a female co-worker saw the farm manager's dog running unrestrained outside and went to the farm manager's house to return the dog. Upon entering the house, she found the farm manager lying face down on the kitchen floor. She looked for a phone but did not find one. The worker went outside, flagged down a passing farm truck and asked the driver to call emergency services. Emergency services personnel arrived, found the victim dead, and contacted local law enforcement and the coroner. The coroner arrived at the scene and pronounced the victim dead.

To prevent future occurrences of similar incidents, the following recommendations have been made:

Recommendation No. 1: Farm personnel, including owners, managers, and farm workers should be educated on the risk of adverse and fatal human effects associated with the use of common equine veterinary drugs.

Recommendation No. 2: Manufacturers of commonly used on-site equine drugs should include stronger label warnings against potential adverse human effects of the drugs by injection or ingestion.

Recommendation No. 3: After mixing veterinary drugs on-site, vials or storage containers should be appropriately labeled with the correct contents and concentration of the drugs.

Background

On May 7, 2004, via Kentucky Vital Statistics, the Kentucky Fatality Assessment & Control Evaluation program became aware of an occupational fatality involving a farm manager who accidentally died after injecting himself with the horse sedative, Xylazine. The coroner was contacted and interviewed, as was the police officer who responded to the call. The office manager at the farm was interviewed and a site visit was made on January 19, 2005.

Approximately 30 brood mares and 20 foals are housed and raised on 1,000 acres of a Kentucky horse breeding farm. The farm consisted of an office, a farm manager's house, numerous barns, and miles of plank fencing. An office manager does payroll, keeps accounting records, and

interacts with farm personnel. The farm manager kept the farm work activities organized such as proper feed ordering and feeding schedules for the horses, breeding of mares, veterinarian visits, farrier visits, and vaccinations and injections as necessary.

On-site training for injection of equine veterinary pharmaceuticals was typically provided to farm owners/managers by the farm's licensed veterinarians. The pharmaceuticals were usually stored in the office except during foaling season; if a horse had to be stalled for an extended period of time; or if horses were being prepared for shipping. On these occasions, the appropriate equine drugs are kept on hand in the barn with the affected horses. Having the vials of equine medications (such as sedatives or pain relievers) on hand in the barn allows the farm manager to respond immediately if something goes awry and a horse needs to be sedated or medicated quickly.

The decedent had been hired as the farm manager 2 – 3 years prior to his death from another horse farm. He had decades of experience in managing equine activities such as training, feeding, administering medications, vaccinations and tranquilization. According to the coroner and police officer the farm manager's wife reported that the farm manager had been kicked numerous times by horses and suffered from chronic pain in his shoulder and back. It was also reported that the farm manager refused to consult a physician for pain relief. A law enforcement officer stated that the decedent's truck had several empty bottles of over-the-counter pain relievers.

Investigation

On the morning of October 6, 2003, a 49-year-old male equine farm manager made his rounds of the farm checking on horses and farm workers. At approximately 8:30 am on the morning of his death, the farm manager drove to the yearling barn. A laborer who was mucking stalls, saw the farm manager go into the barn storage room then return to his truck. The farm manager did not speak with the laborer. The laborer did not know why the farm manager entered the storage area. It was known that Xylazine and Ace were usually kept in the storage area. The farm manager then drove approximately 1,000 feet past his own house on the farm to another barn where he parked his truck, then walked from the barn back to his house. Once in the house, the farm manager sat at the kitchen table and allegedly applied a rope as a tourniquet to his arm. He then injected himself intravenously with an unknown quantity of Xylazine from a vial labeled "Acepromazine".

At approximately 9:45 am, a female co-worker saw the farm manager's dog running unrestrained and went to the farm manager's house to return the dog. Upon entering the house, she noticed the farm manager lying face down on the kitchen floor in front of the outside kitchen door. She looked for a phone and not finding one, went outside, flagged down a passing truck and asked the driver to call emergency services. Emergency services received the call at 9:50 am and arrived at the farm manager's house at 10:00 am to find the victim lying face down on the kitchen floor by the outside door. A 20 cc syringe was on the floor and a piece of 20-inch length of rope with blood on it was on the kitchen table. Four chairs were around the table; one had been knocked over. Blood was on the kitchen table, the rug and the floor. Emergency service personnel immediately attempted to revive the farm manager and also contacted local police. Local police arrived at the scene, interviewed farm personnel and sketched a diagram of the kitchen (see diagram). At 10:30 am, emergency service personnel contacted the coroner who arrived at 10:45 am and declared the victim dead at the scene.

Cause of Death

The local coroner ruled the cause of death as accidental due to “acute xylazine toxicity / injection of drug per vein”.

Recommendations and Discussions

To prevent future occurrences of similar incidents, the following recommendations have been made:

Recommendation No. 1: Farm personnel, including owners, managers, and farm workers should be educated on the risk of adverse and fatal human effects associated with the use of common equine veterinary drugs such as Xylazine and Acepromazine.

During interviews with local veterinarians, the KY FACE team found that there is little or no formal training for farm personnel administering and storing equine pharmaceuticals on farms. Farm personnel are usually shown how to administer a veterinary drug for the medical treatment of horses but training does not usually include a discussion of the adverse effects of human exposure. Horse farms frequently store veterinary pharmaceuticals in barns for emergency use, and affected personnel appear to be unaware of the hazards associated with exposure to these drugs. Formal training needs to include a discussion of the general classes of veterinary drugs, human exposure hazards, proper administration, and proper storage. According to the Agriculture Standard, 29 CFR 1928.21(a)(5) which adopts 29 CFR 1910.1200 Hazard Communication Standards, requires training for all personnel that may handle or come into contact with drugs in liquid form. Farms are also required to have a written “Hazard Communication Program” and MSDS Sheets for all drugs and chemicals on the farm. Cooperation between the community, state, and governmental agencies is needed to address and reduce the hazards associated with misuse and abuse of veterinary drugs.

Recommendation No. 2: Manufacturers of commonly used on-site equine drugs should include stronger label warnings against potential adverse human effects of the drugs by injection or ingestion.

Both of the drugs associated with this case, Xylazine and Acepromazine, have warnings on their labels. Xylazine’s warning states, “Not for human use; keep out of reach of children”. Acepromazine’s warning states, “Keep out of reach of children; for use in dogs only”. Although the Acepromazine label indicates it is for use only in dogs, interviews with veterinarians and internet searches indicate Acepromazine is commonly used in horses. Pharmaceutical manufacturers of these drugs should include stronger warnings against human exposure and the unintended use of their product. Information needs to include what to do in case of accidental ingestion or injection. Additionally, there should be a large warning on the bottle of possible fatal effects.

Recommendation No. 3: After mixing veterinary drugs on-site, vials or storage containers should be appropriately labeled with the correct contents and concentration of the drugs.

After interviewing several veterinarians, it is typical to mix equine medications in a common vial. When these medications are mixed, care should be taken to label the vial with the mixture concentration, such as: 1:9 Xylazine/Acepromazine. According to several veterinarians,

Xylazine and Acepromazine are commonly mixed together to sedate a horse. In this case, the farm manager had a vial marked “Acepromazine” which actually contained Xylazine. It is unknown if the farm manager thought he was using Acepromazine, or if he knew the vial actually contained Xylazine, or if he thought the vial contained a mixture of both.

Also, 29 CFR 1910.1200 requires proper labeling for in-house containers with the correct contents and concentrations of the drugs.

Keywords

Acepromazine
Equine
Injection
Equine pharmaceutical drugs
Xylazine

References

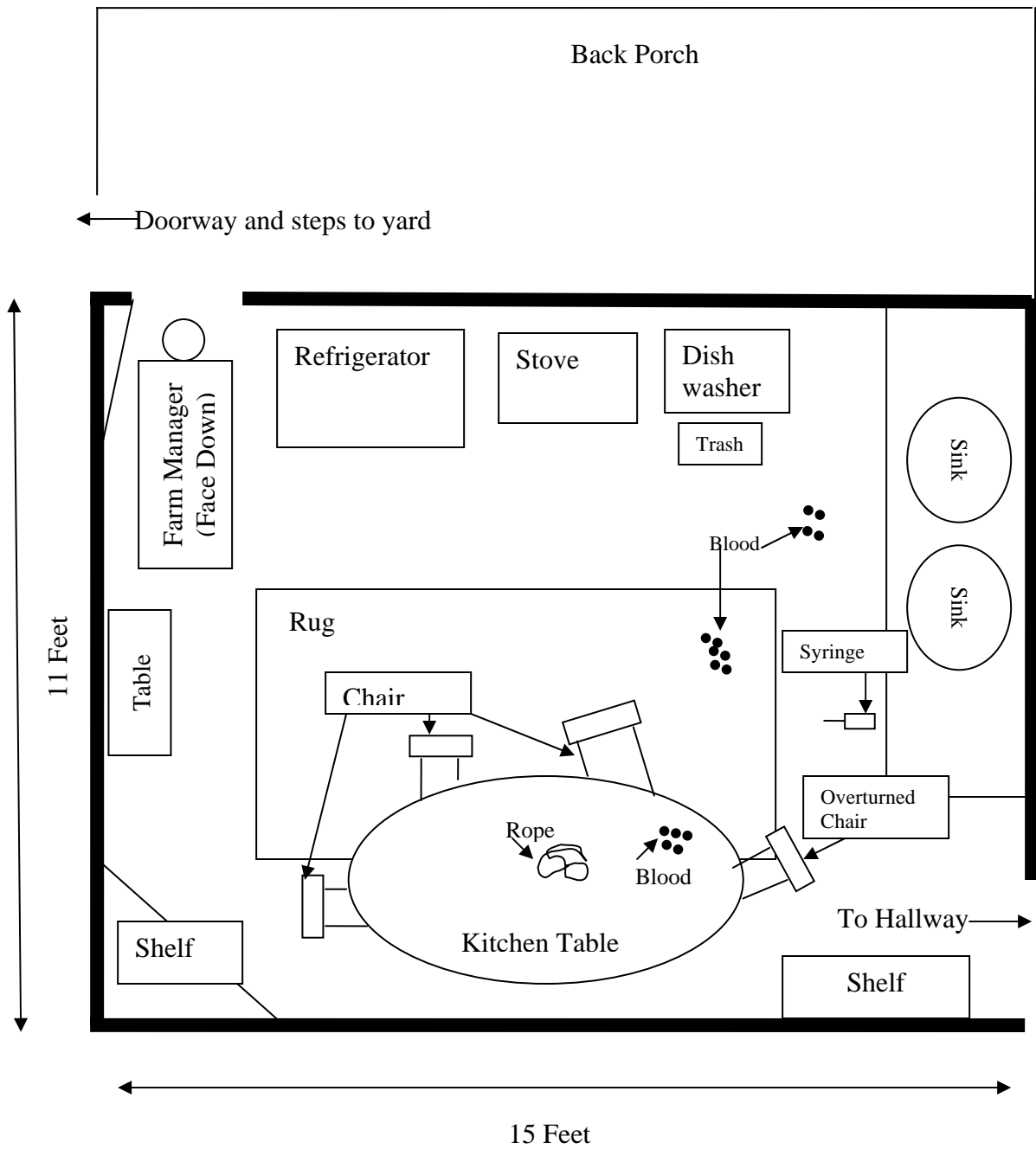
Coroner
Kentucky Government officials
Numerous veterinarians
Police Officer
Former KY OSH Training Officer
29 CFR 1910.1200
29 CFR 1928.21(a)(5)

Acknowledgements

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The Kentucky Fatality Assessment & Control Evaluation Program (FACE) is funded by a grant from the Centers for Disease Control and the National Institute of Safety and Health. The purpose of FACE is to aid in the research and prevention of occupational fatalities by evaluating events leading to, during, and after a work related fatality. Recommendations are made to help employers and employees to have a safer work environment. For more information about FACE and KIPRC, please visit our website at: www.kiprc.uky.edu

Diagram of kitchen in farm manager's house.
(Diagram sketched from responding police officer's drawing of scene)



Not to scale