



Euthanasia Techniques

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Injection Cephalic Vein

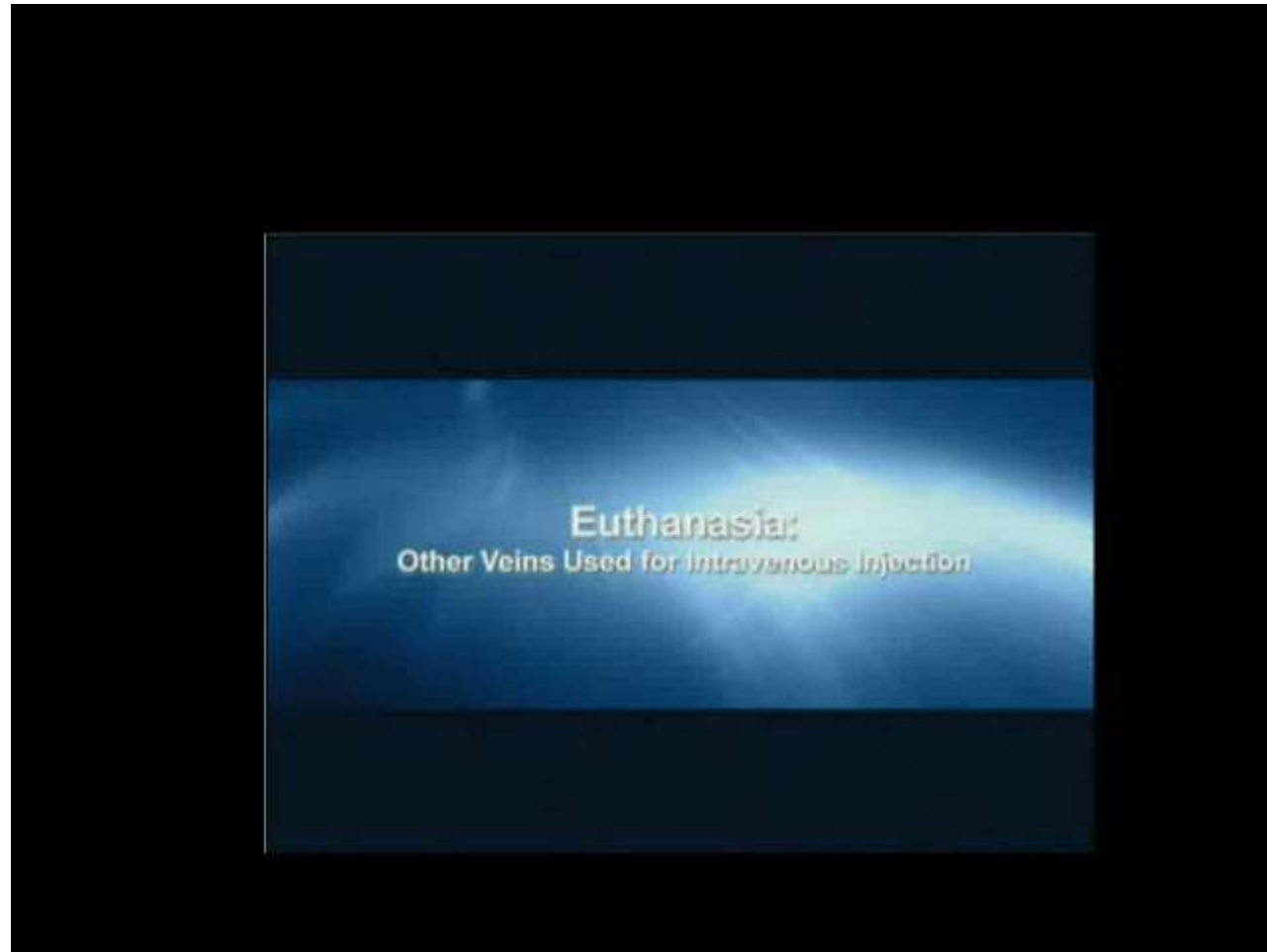


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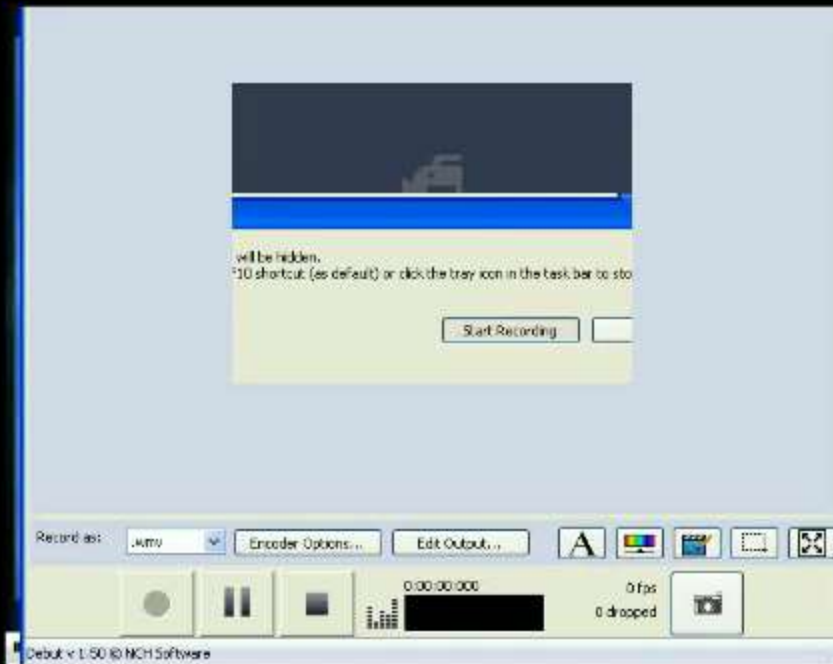
Injection Other Veins



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Intraperitoneal Injection



7:03

Intracardiac Injection



3:36

Verification of Death



5:22

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Euthanasia of Wildlife

- Consult with game warden before euthanizing protected species
- Assume all rabies vector species to be infected with rabies
 - Skunk
 - Bat
 - Raccoon
 - Fox, coyote
- Send head for rabies examination if any people or domestic animals exposed



Euthanasia of Wildlife

- Birds
 - **Intracoelemic** injection just below the breast bone
 - 0.3cc/lb body weight; 3 cc/10 lb body weight
- Small Mammals
 - Rabbits, guinea pigs, mice, hamsters, etc.
 - Anesthetize, then IP or IC injection
 - IP without sedation if can be safely restrained



Euthanasia of Wildlife

- Reptiles
 - Must be sedated prior to euthanasia
 - Especially turtles and tortoises (why?)
 - Requires supervision of a veterinarian
 - Know how to identify poisonous snakes
 - 2-3cc pentobarbital/10 lbs
 - Reptiles can feign death, and heart rate can fall to a few per minute and still be alive
 - Death can take a day or two

Euthanasia of Livestock

- Gunshot to the head commonly used
 - May need to follow with shot to the heart
- If euthanized with pentobarb, the animal can not be used for food
 - Wildlife can be poisoned
- Cattle in a chute or sedated
- Horse euthanasia only by the experienced
 - 120cc solution attached to an IV line
 - Horse can rear after injected
 - Must be clear of the horse when falling





Euthanasia of Livestock

- Cattle, sheep and goats
 - Inject jugular vein
- Pigs
 - **Sedate** then IC injection
 - Thick fat layer makes IV injection very difficult, unless the ear vein is used
 - The squealing is unbearable
 - Sometimes can hit the ear vein with sedation
 - Experienced pig handlers can hit the jugular vein, but it takes practice.



Euthanasia of Livestock

- **AAEP Euthanasia Guidelines**
 - **IV pentobarbital is preferred**
 - Gunshot to the brain is acceptable
 - Captive bolt is acceptable
 - IV potassium chloride after sedation is acceptable
 - Alternatives may be necessary under special circumstances



Euthanasia of Livestock

- **AVMA** – captive bolt OK for cattle, horses, swine
- **AABP** – captive bolt OK for cattle
 - Followed by exsanguination or pithing
- Non-penetrating captive bolt guns should not be used



Euthanasia of Aquatic Animals

- Agents approved by the FDA as tranquilizers and anesthetics for finfish have been used extralabel as euthanasia agents for aquatic animals.
 - MS 222 – Tricaine methane sulfonate (TSM)
 - Finquel®, Tricaine-S®
- Benzocaine hydrochloride gel can be applied to the belly of the fish
- Immersion in low concentration ethanol can also be used

Injection Tips

- **Quickly check needle for barbs to prevent painful injection**
 - Cheap needles will become dull or barbed with a single pass through the drug bottle
 - Change the needle for comfort (2 needles per animal, or leave 18g needle in vial)
- **If you must recap a needle, use the one handed technique (demo)**
- **Keep a syringe of 8-10 cc of pentobarbital ready, in case re-injection is needed**
 - If not needed by the end of the day, return to the drug supply bottle in the safe

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IV Injection

- **Unconsciousness within less than a minute**
- **Things that can delay onset of death**
 - **Mental state – excitement**
 - sedate
 - **Poor circulation**
 - Dehydration
 - Shock
 - Heart failure
 - After a large meal (xylazine can cause vomiting)
 - Inherent drug tolerance