

Giving Horses Intravenous Shots

Dr. Mark Russell Assistant Professor – Equine Extension

This article is a continuation of a series of articles on giving your horse a shot. In this particular article you will see many of the same fundamental guidelines as seen in the last article (administering intramuscular shots). In this edition, we will specifically discuss administering intravenous shots.

Throughout the duration of owning or caring for horses, the necessity of giving them an intramuscular shot may occur. During this time, it is imperative to use only the best areas to apply the shots, as well as the being aware of the repercussions of not properly applying the shots. You should always consult your veterinarian prior to administering any type of shots. There are four separate ways to administer shots to horses:

- Intravenous injections administered into a vein
- Intradermal injections administered into the skin
- Subcutaneous injections administered underneath the skin
- Intramuscular (IM) injections administered into a large muscle mass

When approaching your horse to administer the shot, it is best to spend a few minutes with the horse to ensure that he or she is in calm state and ready to be handled. Horses that have had shots before tend to remember and may refuse if they had a negative experience or simply do not like shots. Keep in mind that a horse that objects the shot can easily hurt the handler. Additionally, many drugs given to horses can have adverse reactions if absorbed into human skin or if accidentally injected into the handler or person administering the shots. It is crucial to discuss the drug with your veterinarian to identify any precautions that must be taken. It is also best to double check the label prior to giving the shot to ensure that it is the correct drug, the expiration date has not expired, and you are sure of the recommended dosage. In general, consider the following recommendations:

1. Apply generous amounts of alcohol to the area intended for the injection. If no alcohol is available or to achieve maximum sterilization, shave the area to give the shot.
2. With needle in hand, rub up and down on the injection site. This will distract the horse and desensitize the area.
3. While rubbing and in one continuous movement, insert the needle, continuing to rub the area after the needle is inserted. Practice is essential to make this go smoothly.
4. Observe the horse for any signs of allergic reaction for about 30 minutes after giving the injection.

Dr. Robert Remlinger, D.V.M., shares his knowledge on giving intravenous shots. In particular, he indicates the following procedures to follow:

- It is imperative that the medication be administered slowly (about one millilitre per five seconds) into the jugular vein. Accidental injection of many medications

outside the vein (perivascular) will often result in damage to and possible sloughing of the surrounding soft tissue. Inadvertent administration of medication into the underlying artery can result in a life-threatening situation! Repeated intravenous injections can also result in infection and/or thrombosis (blood clot) of the jugular vein.

- IV injections should be performed in the anterior (top) third of the neck and that it is usually easier to do so, on the left side. First, the injection site should be swabbed with 70 per cent alcohol. Next, distend (raise) the jugular vein by applying digital pressure just below the venipuncture site.
- For a full-grown horse a 19 to 20 gauge needle is aligned over the distended vein and inserted, on an angle, into the vein. Correct placement of the needle will result in the hub of the needle filling with blood at a moderate rate. Spurting of blood from the needle hub probably means that the needle has accidentally entered the artery and so the needle must be withdrawn and redirected into the vein.
- After correct placement of the needle, the syringe containing the medication is carefully attached to the needle. Pulling back on the syringe plunger should result in a flashback of blood into the syringe if you still have the needle properly placed. The medication can then be injected intravenously. Take care to recheck the position of the needle by slightly pulling back on the plunger after every few millilitres are injected.

Helpful Tips:

1. Follow the recommended method of drug storage.
2. Do not mix individually packaged drugs in the same injection. It is better to play it safe and give the horse two separate injections.
3. Untie the horse and hold its lead rope or have someone else hold it.
4. If the horse tries to kick, pull his head toward you (this will swing its rear end away from you).
5. Make sure you use a sterile needle and syringe. Individually packaged, disposable sterile needles and syringes are the easiest way to ensure sterile equipment. Open the packages immediately before use, and dispose of them immediately after use. Never reuse a needle because a contaminated needle can easily introduce an infection into a horse.

Sources: Dr. Robert Remlinger, D.V.M and Amy Harris

University of Arkansas, United States Department of Agriculture and County Governments Cooperating.

The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.