



Dairy Details

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NORTHERN VALLEY DAIRY PRODUCTION MEDICINE CENTER

Revisiting the Bovine First Aid Kit

I must admit, this month's newsletter is a revamp of a former newsletter written by Dr. Bennett for the Dairy Star. After nearly 40 years in practice, he and Dr. Nigon have learned a few tricks of the trade!

In the old days, there were many evening emergency calls in veterinary practice. Today, there are fewer evening calls, not because large animals or cows do not have emergencies, but because many producers are skilled and equipped to handle a lot of emergencies themselves. Being prepared for the unexpected is important, so let's talk about what should go into a proper bovine emergency first aid kit. Many of these same products can apply to small ruminants and some to equine as well.

1. **A place to catch the cow or other said animal.** I might enjoy riding horses, but I am not a very good cowboy. A simple head catch and gate or chute will work in most situations and save a lot of time and delay the onset of my gray hair.
2. **Large animal epinephrine.** Large animal epinephrine has a concentration of 1 mg/ml. The label might instead say "1:1,000." Epinephrine must be protected from light to prevent deterioration, so store it in the dark. Epinephrine is useful for anaphylactic

reactions, most typically seen after injection of a vaccine or antibiotic for example. It is also helpful for relaxation of the uterus during dystocia to gain more room within the uterus to correct calf's position. If you have a head back or breech calving, try 10 cc epinephrine in the muscle and wait 3-5 minutes.

3. **Banamine (flunixin).** This is also useful for reactions, especially the "anaphylactoid" type. These often show up after a vaccination but may occur up to 24 hours later instead of minutes after an injection.
4. **Steroid hormones.** Dexamethasone is the typical version used. Prednisone has been discontinued. They can be given for anaphylactic and anaphylactoid reactions. Take caution though! Dexamethasone will cause abortion if the animal is pregnant.
5. **Calcium borogluconate (Ca 23%).** Even with all our new approaches to controlling milk fever we still expect 1-2% of fresh cows to have milk fever. Calcium borogluconate is the preferred first treatment. Combination products with dextrose, phosphorous, potassium and magnesium will also work, but they usually contain less calcium, inadequate amounts of potassium, a type of phosphorous that is impossible for the cow to absorb, and dextrose, which most cows with milk fever do not need as they have high levels from being down and stressed. However, CMPK may be a good repeat treatment for down cows, mostly because of the magnesium content.

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6. **IV simplex – CLEAN and IV needles.** A clean IV simplex and new 2 inch or longer 14-gauge needles are must-haves. There is no reason to subject cows to injections with dull, reusable IV needles. Discard the needles after 1-2 uses. The simplex can be reused and is best kept clean and dry and can be submerged in a disinfectant solution before use. A small supply of other syringes and needles should be stored in the first aid kit as well.
7. **A large hemostatic forceps.** Get a large one; preferably 8" or longer. We can help find one. These are useful to clamp on bleeding vessels. The large size is best for clamping vaginal bleeders that may occur after dystocia. These are also useful for clamping bleeding milk veins. There are a variety of other clamps that can work for milk veins, clipboard clamps, hobby/woodworking clamps, but they do not work well for vaginal bleeders.
8. **Celox A** 15 gm package of Celox, or similar, hemostatic granules. One package applied to a bleeding fore udder sore, with pressure and a bandage, can sometimes be the difference between life and death. Note that this is not the same as the old corn starch trick or dehorning powder. This stuff is much more effective.
9. **Cotton/bandaging.** A roll of cotton, similar large bandage, or clean towels that can be fashioned into a pressure bandage to be applied to a limb.
10. **Sterile gauze pads.** These can be individually wrapped or purchased in bulk. If using bulk be sure to close the bag after opening and put inside a bigger, sealable plastic bag.
11. **Four inch VetWrap or Elasticon** This is for bandaging, usually with gauze pads and either cotton or towels underneath.
12. **A topical antibacterial solution, paste or spray.** This is useful for cuts and abrasions. The Vetericyn product line is very nice. On the food animal side, avoid Blukote, because it is not allowed in food-producing animals by the FDA due the gentian violet ingredient.
13. **Liquid soap.** A surgical scrub like Betadyne is preferred, but any liquid soap will work to clean a wound or prolapsed uterus in a pinch. It can also be used to clean the vulva before assisting with calvings.
14. **Topical fly spray.** During warm months flies can be relentless and can cause significant pain when attacking wounds.
15. **Cow hobbles.** Unfortunately, dairy cows are prone to injury, and "doing the splits" is not uncommon. Velcro backed hobbles are inexpensive and simple to use. They can also be useful to keep from getting kicked by an ornery cow when working around the back end or udder.
16. **Calf leg splints.** These are helpful for correcting contracted tendons in newborns, but also can be used to splint a broken leg, along with a bandage, in a newborn calf.
17. **OB equipment.** A functional fetal extractor, OB chains and handles and at least a gallon of lube should always be on hand.
18. **Emergency contacts.** Place in a highly visible place for your employees and yourself in times of emergency or questions.
19. And of course: **Duct tape.** Just because. But do not put it on a cow's teat. You will risk your head when you remove it.

There are other things some might consider to be included, but this is most of the important items. As always, consult your herd veterinarian for usage instructions and other input. Farmers can be the "mother of invention" when necessary; however, having the right tools at hand makes the job easier and may produce better results.

Current Backorder Items

- Nitrile blue gloves, powder free, large, plus some milkers gloves
- SulfaMed (Sulfadimethoxine) Injection 40%, 250mL
- Blood stop powder
- Clostridium Perfringens C and D Antitoxin, 250mL
- Tetanus Antitoxin, 15000 Units, 20mL
- VetriPen G (Penicillin G Procaine), 100 mL
- Dexamethasone – limited supply
- Predef 2X –discontinued
- Corid (but we can get generic)
- Sustain III calf boluses – limited quantity
- Entervene D, 10 dose
- Triangle 10 HB, 10 dose and 50 dose
- Virashield 6 L5, 10 dose and 50 dose
- Bovishield Gold 5, 5 dose
- Bovishield Gold FP5, 5 dose, 10 dose, 50 dose
- Bovishield Gold One Shot, 5 dose and 10 dose
- Bovishield Gold FP5 L5 HB, 5 dose, 10 dose, 50 dose
- Tomorrow dry cow tubes – box of 12/pail of 144
- Boviblock teat sealant, pail

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